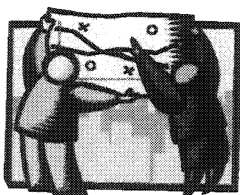
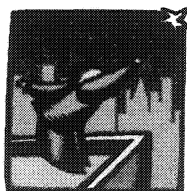


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Community Partnerships: Review of Selected Models and Evaluation of Two Case Studies

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ABSTRACT Risks for cardiovascular diseases (CVDs) are established early in life with behavior patterns associated with diet and physical activity. Establishing healthy behavior patterns among children, and providing the environmental supports necessary to maintain them, has the potential to reduce future risks for chronic diseases. This paper reviews the literature on collaborative partnerships formed to address similar issues. The authors describe the evaluation of school and community partnerships facilitated by the Kansas LEAN School Intervention Project, which had the mission of reducing risks for chronic diseases, including CVDs and some cancers, among children. A multiple case study design was used with collaborative partnerships in two communities in Kansas. The results suggest that the partnerships facilitated important changes in the schools and communities. We discuss challenges and opportunities in the evaluation of school and community partnerships for health.

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INTRODUCTION

Risks for cardiovascular diseases (CVDs) begin early in life. Based on assessments of students in six public schools in New York City, researchers estimated that by age 12, approximately 40% to 60% of children have at least one modifiable risk factor for coronary heart disease.¹ Diet and exercise patterns,

strong contributors to risk for heart disease, are influenced by multiple environmental conditions such as the availability of healthful foods or exercise opportunities, peer influences, media, and family practices.²

Collaborative partnerships offer a mechanism for individuals to change community conditions that affect health.³ They engage diverse community groups, use multiple strategies, and work together to achieve a common purpose.⁴ Partnerships are alliances in which all share risks, responsibilities, resources, and rewards for the common effort.⁵ School and community partnerships might be especially well suited for reducing children's risk for chronic diseases. Within schools, teachers, foodservice personnel, and coaches can have substantial influence over children's opportunities for healthful diet and exercise. Similarly, within the broader community, restaurateurs, grocers, and parents can promote healthy environments. Collaboratively, these partners have the power to implement changes (e.g., new or modified programs, policies, and practices) in the school and community to improve children's diet and exercise patterns. There are a number of models for developing collaborative partnerships for community health. Comprehensive models include components to increase awareness (e.g., through newsletters or special events), change lifestyles (e.g., skill building or incentives), and create supportive environments (e.g., changing norms or creating new opportunities for healthier eating and exercise).⁶ Several illustrative models are discussed in this paper.

PATCH programs. The Centers for Disease Control and Prevention (CDC) developed the Planned Approach to Community Health (PATCH) program based on the PRECEDE-PROCEED model.⁷ PATCH provides training and workbooks that help identify and contact key community members, generate funds and human resources, and develop a plan for action. Although there are hundreds of community applications of the PATCH process, according to M. Kreuter (personal communication, May 1996), few have been carefully evaluated. Strengths of the PATCH program include the availability of detailed manuals and handbooks and the poten-

Work was conducted in the Kansas communities of Salina and Dighton in conjunction with Unified School Districts 305 and 482.

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tial for developing relationships among communities, health departments, and the CDC. However, procedures for implementing PATCH are somewhat complex, requiring extensive technical assistance or local expertise.³

Healthy Cities. The World Health Organization's Alma-Ata conference on primary care created global awareness of the importance of community influence over health care, emphasizing the importance of preventive intervention and the value of "health for all."^{8,9} The goals of Healthy Cities projects include forming and acting on comprehensive plans for health that involve many community sectors. For example, Healthy Cities Indiana, a six-city initiative founded in 1988, had by 1992 developed a walking program, health public service announcements, and long-range plans for solid waste recycling and crime watch programs.¹⁰ No effects on key outcomes have been reported for Healthy Cities. Strengths of the Healthy Cities model include emphasis on collaboration, participation from multiple sectors of the community, and the potential for support and communication within the Healthy Cities network. Weaknesses of the model include poor documentation of procedures, lack of a targeted mission, and heavy emphasis on planning, with little evidence of implementation or evaluation of outcomes.

Urban community development model. This model is based on principles of community development.¹¹ A designated lead agency convenes city-wide leadership, professionals, and neighborhood groups in a three-tiered partnership designed to strengthen the "social infrastructure" of the city. Partnership staff guide groups through member recruitment and collaborative planning to increase communication and accountability between leaders and constituents of communities. An academic center provides an enabling system that includes leadership training, staff training and supervision, state-wide meetings, and consultation. Initial applications were designed to reduce alcohol and drug abuse. No effects on health outcomes have been reported for this model. Strengths of the model include high citizen involvement, systematic technical assistance for sites,¹² and the inclusion of people most affected by the issue in planning and implementation. Limitations to date include no measures of effects on outcomes or whether "social infrastructures" have been strengthened.

University of Kansas (KU) Work Group model of health promotion through community development. This model was initially developed to support the Kansas Initiative, a state-wide health promotion program sponsored by the Kansas Health Foundation.³ This model has been used to address the prevention of adolescent pregnancy,¹³ adolescent substance abuse,¹⁴ and cardiovascular risk reduction.¹⁵ Model developers provide manuals¹⁶⁻¹⁸ and other forms of support in five phases of partnership development, including collaborative planning, collaborative action, community change, capacity building and health outcomes, and institutionalization and renewal.¹⁹ Community involvement includes representatives from numerous agencies and organizations, such

as schools, health professionals, business, and civic organizations. Six ongoing case studies for prevention of adolescent pregnancy and substance abuse established in 1993 have shown hundreds of changes in programs, policies, and practices consistent with their missions, such as a summer youth employment program, increased access to contraceptives, ongoing alternative activities, and ordinance changes. Although outcome data are preliminary, an earlier study of a substance abuse partnership showed an apparent relationship between high rates of community change and the community-level indicator of single-night-time vehicle crashes (SB Fawcett, RK Lewis, A Paine-Andrews, et al., unpublished data, 1995). Strengths of the model include manuals for action planning and monitoring and evaluation, a coupling of technical assistance and evaluation,²⁰ and a measure of community change that provides regular feedback to partnerships on how well they are mobilizing citizens for change.²¹ Limitations include somewhat complex monitoring and evaluation procedures that require either substantial local expertise or external support to implement.

To date, no individual model embodies the high road to community health. PATCH and the KU Work Group model provide extensive materials for conducting collaborative planning. The Urban Community Development Model and the KU Work Group model have outlined enabling systems for supporting community development. Healthy Cities has mobilized the upper echelons of communities across the globe; the Urban Community Development Model fosters the involvement of marginalized citizens who are usually left out of the social planning loop. All of the models are currently implemented in multiple communities. None of the models has demonstrated favorable health outcomes in multiple sites, which might be considered the hallmark of an effective model. This might be due to the fact that most of the health outcomes targeted by these programs take many years to accrue. Large-scale community-based interventions in the 1970s and 1980s required 5 to 10 years to demonstrate reductions in risk factors for chronic diseases.³

It is difficult to detect the effects of community partnerships. Partnerships often deliver a multitude of community interventions that target high-risk individuals, all individuals, and the environment in which individuals make health-related choices. The sum of these community interventions represents the degree to which a community has been transformed into a more health-promoting place that makes health-related choices easier.²² Given that evidence of health outcomes may take many years to accrue, a core evaluation issue involves identifying an intermediate measure of partnership outcomes.

This paper describes an evaluation of the processes and intermediate outcomes of school and community partnerships for reducing risks for chronic diseases such as CVD and some cancers among children. A multiple case study design²³ was used to examine the effects of two partnerships on school and community changes related to the mission. The community partnerships were in Salina (population 42,300) and Dighton (population 1400), Kansas. This effort was part of the Kansas

LEAN School Intervention Project, sponsored by the Kansas Department of Health and Environment and the Kansas Health Foundation. This evaluation was designed using the KU Work Group model of health promotion through community development.

METHODS

Context of the community partnerships and support organizations. Kansas LEAN, a program of the Kansas Department of Health and Environment, Bureau of Chronic Disease and Health Promotion and the Kansas Health Foundation, designed and facilitated the implementation of the Kansas LEAN School Intervention Project. Kansas LEAN has the mission of reducing chronic disease among Kansans through community-based prevention efforts.¹⁵ The KU Work Group provided technical assistance and evaluation for the project. The Kansas Health Foundation provided a 2-year grant (\$155,454) to design, pilot test, and evaluate a comprehensive chronic disease prevention program for youth in two communities. Kansas LEAN conducted focus groups with representatives from potential intervention communities throughout the state to provide background for developing the project.

Kansas LEAN School Intervention model. The Kansas LEAN model consisted of forming partnerships to make changes in schools and the broader community. In addition, there were three school-based components: (a) modifying school lunches, (b) enhancing nutrition education, and (c) increasing opportunities for physical activity. This paper focuses on evaluating the community partnership; methods for evaluating the specific school-based components, as well as the evaluation results, are described elsewhere.²⁴ Each community partnership consisted of various community sectors, such as government or business, coming together to support the school-based changes and to bring about changes in the broader community so that children and their families would have additional opportunities outside of school to select lower fat foods and participate in fitness activities.

Kansas LEAN hired on-site coordinators to facilitate intervention activities. These on-site coordinators were registered dietitians who worked approximately 20 to 30 hours per week. On-site coordinators initiated the partnerships by recruiting parents, teachers, business leaders, and other community members to participate. Coordinators also provided leadership for the group. The partnerships in Salina and Dighton emerged in different forms. Collaborators in the Salina project included existing organizations with similar missions (e.g., YWCA, the American Heart Association), local restaurants and grocery stores, and food distributors (e.g., Tony's Pizza). In Salina, the partnership held few formal meetings. The on-site coordinators discussed community needs with the partners and served as a broker, conveying ideas and assistance among partners. Existing programs were expanded

or modified to increase opportunities for physical activities and healthy eating for school-aged youth and their families.

Project collaborators in Dighton included local media representatives (the newspaper editor and cable television manager), a senior citizens' group, a sports medicine specialist, the local grocery store, preschool providers, sports coaches in all schools, the local public library, the local health department, the local extension office, parents, teachers, and representatives from the local school board. For the first 6 months, the partners met bimonthly as an entire group to develop goals and action steps for each of the four project components. Partners then formed multiple task forces to work toward implementing the goals. The task forces selected chairs and met independently. Chairs of the task forces reported progress to the coordinator informally on an ongoing basis and to the entire partnership quarterly. Few exercise facilities were located in Dighton. To increase fitness opportunities, partners focused on developing new programs, such as a noncompetitive annual track meet for young children, and enhancing sports opportunities for girls.

The community partnerships had two main functions: (a) supporting and enhancing implementation of major project components in schools (e.g., modifying school lunches and increasing opportunities for physical activity) and (b) serving as a catalyst for changes in the broader community to reduce risks for chronic diseases. These changes were intended to (a) raise the level of awareness of children's risk for chronic diseases, (b) provide information about how to reduce risks for CVD, (c) provide opportunities to engage in protective behaviors, such as regular physical activity and eating healthier foods, and (d) enable the school and community to maintain and expand efforts when the project ended.

Measurement system. Project evaluators and staff negotiated the key questions and measures used to evaluate the project by considering (a) what outcomes were important to the staff and funders, (b) what information would facilitate midcourse corrections, (c) what changes would likely be detectable (such as new or modified programs, policies, and practices), and (d) what measures were feasible to use.

Project staff and leadership selected several key questions related to the community-based partnership, including (a) were changes in the community facilitated by the partnerships? (b) how well were the partnerships implemented? (c) were the goals of the partnerships important? and (d) were community changes important to reducing children's risks for chronic diseases? Evaluators used a monitoring system and constituent surveys to address these questions. Although detailed measurement procedures are discussed elsewhere,¹⁸ the measures, methods for data collection, feedback systems, and case study designs are briefly described in the sections below.

Log monitoring system. For 2 years, project evaluators used a monitoring and feedback system²¹ to document the partnerships' activities (e.g., services provided and community actions) and to track how the school and community became

more health promoting by increasing opportunities for healthy choices (community changes). Services provided are defined as events designed to provide information, instruction, or develop skills of people in the community (e.g., ongoing basketball programs, menu planning classes). Community actions are defined as actions taken in the school or community to bring about new or modified programs, policies, or practices to reduce risks for CVDs (e.g., meeting with teachers to revise curricula). Community changes are defined as new or modified programs, policies, or practices in the school or community that are facilitated by the partnership and reduce risks for CVDs (e.g., adopting a new physical education curriculum). Table 1 provides selected example community changes facilitated by the two community partnerships.

To complete the logs, project evaluators made weekly or monthly phone calls to partnership staff about activities and accomplishments. Information about the partnerships' activities was transcribed onto log forms by evaluators. Two evaluators categorized events facilitated by the partnerships using

a list of behavioral definitions. Inter-rater reliability was calculated by dividing the number of agreements by the total number of agreements plus disagreements. The scoring system was 82% reliable for log entries in Salina and 86% reliable for Dighton log entries.

Constituent surveys. Evaluators used printed surveys to gather local citizen ratings of the importance of the projects' goals and accomplishments. At the end of the first year, evaluators mailed surveys to community members. Survey participants were selected by partnership staff and included community members who were involved with the partnership either as members of the partnership, teachers, school administrators, or potential partnership supporters. Response rates were 60% in Dighton and 67% in Salina, resulting in 12 completed surveys in Dighton and 14 in Salina. Survey items included a listing of (a) broad partnership goals (e.g., revise school lunch menus to reduce the percent calories) and (b) partnership accomplishments, which were the community

Table 1. Illustrative community changes and dates the changes were initiated in Dighton and Salina.

<i>Example Community Changes Facilitated in Dighton</i>	
<i>Programs</i>	
<ul style="list-style-type: none"> Installed fitness stations in classrooms (4/92); developed curricula (9/92) and an incentive system (3/93) for its use. Sponsored "LEAN Meat—Let's Eat" night with food sampling and an analysis of the nutrition and exercise behavior of five local families. Coordinator made recommendations to the families for improvement and reported their progress in the newspaper (1/93). Collaborated on initiating a fundamentals of basketball and volleyball program for girls (2/94). 	
<i>Policies</i>	
<ul style="list-style-type: none"> Adopted an enhanced physical education curriculum school wide (9/92). Adopted a cycle menu program district wide that will facilitate low-fat product purchasing and menu planning (4/93). School agreed to sponsor an annual health fair at the elementary school (3/93). 	
<i>Practices</i>	
<ul style="list-style-type: none"> Established a monthly column called "LEAN Corner" in the local newspaper (7/92). Initiated a 3- to 5-minute daily stretch program in the classrooms to increase flexibility and develop positive habits for warm-up, cool down, and CVD fitness (10/92). Added a juice vending machine to provide alternatives to soda pop (6/93). 	
<i>Example Community Changes Facilitated in Salina</i>	
<i>Programs</i>	
<ul style="list-style-type: none"> YMCA offered more basketball programs for children concurrent with adult exercise classes (8/92). Sponsored a dietary change program, Leaner Eater, for local teachers and food servers (8/93). Offered cholesterol testing to students, teachers, parents, and community members (9/93). Established parent-child aerobics and line dancing classes at the local YWCA (1/94). 	
<i>Policies</i>	
<ul style="list-style-type: none"> School adopted the fitness components as a permanent part of the physical education curriculum (1/94). School adopted the nutrition education components as a permanent part of the curriculum (1/94). 	
<i>Practices</i>	
<ul style="list-style-type: none"> Foodservice cooks started using exact measurements of ingredients (4/92). Local physicians rotated residents through a community nutritionist's practice to give residents experience in nutrition education (5/93). On-site coordinator and local physician included nutrition education in checkups for children 0–18 years of age at a local health clinic (5/93). 	

changes facilitated by the partnership and collected using the log system (e.g., collaborated with the YWCA to offer new parent-child aerobic classes). The survey asked respondents to rate the importance of the goals and accomplishments on a scale of 1 (least important) to 5 (very important). A section for comments was included to solicit general feedback.

Feeding data back to relevant audiences. Ongoing graphing of community changes, services provided, and community actions, similar to Figures 1 and 2, permitted regular feedback on partnership progress and accomplishments. Initially, feedback was provided monthly, and later quarterly, in meetings with partnership leadership and staff. Feedback enabled the collaborators to detect and celebrate early successes, such as a newly established cycle menu to facilitate meal planning. At times, when rates of community change lessened, staff and evaluators considered what barriers to action or change were being encountered, and whether renewed efforts were called for. Evaluators summarized the results from the constituent survey of goals and accomplishments by calculating the mean and range of the respondents' ratings. Staff and evaluators discussed these data, and staff were encouraged to focus on changes that were highly rated.

Design. A multiple case study design²³ was used to explore the effects of the community partnerships. Data were collected in a time-series fashion²⁵ over 27 months.

RESULTS

This section describes the data secured to answer key evaluation questions about the process and intermediate outcomes of the school and community partnerships.

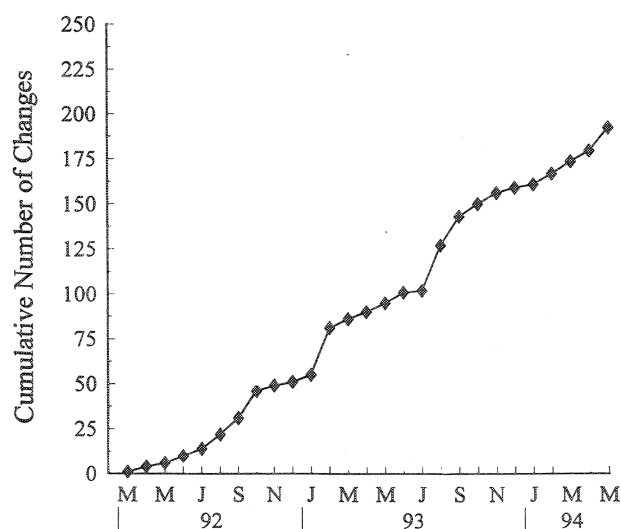


Figure 1. Cumulative number of community changes facilitated in Dighton.

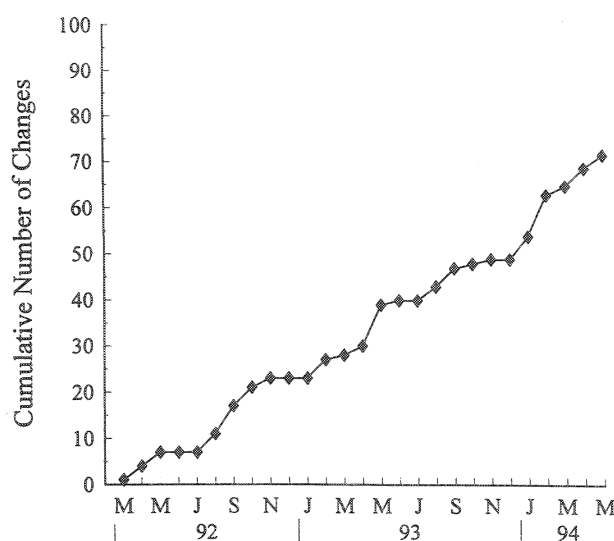


Figure 2. Cumulative number of community changes facilitated in Salina.

Were changes in the community facilitated by the partnerships? Many changes were facilitated in both communities to support the partnership's efforts. Figures 1 and 2 show the cumulative number of community changes (new or modified programs, policies, and practices) produced by the partnerships and reported by staff using the log monitoring system. A steeper line reflects more activity, a flat line indicates no activity. Illustrative community changes, such as initiating summer fitness programs, are noted in Table 1. The partnership in Dighton created over 179 community changes over a 27-month period (see Fig. 1). Cumulative community changes shows a steady climb with increases in the fall, when school opened and planned activities were implemented. Changes facilitated in Dighton included, but were not limited to, many one-time community events on fitness and nutrition, changes in classroom and physical education curricula, menu and recipe changes, changes in community sports leagues, cooking demonstrations, and health screenings.

The partnership in Salina created over 72 community changes during the same 27-month period (see Fig. 2). The partnership created a large number of changes at a steady rate during implementation. Changes facilitated in Salina included collaborating with community agencies to offer family-oriented fitness programs, changes in classroom and physical education curricula, menu and recipe changes, and several one-time fitness and nutrition events such as student dances.

How well were the partnerships implemented? Evaluators also used the log reporting system to collect information about service provision and community action to see how well the partnership was implemented. Both sites provided a high and steady rate of services over 2 years: the total number of services provided and reported in the log system was 162 in Dighton and 129 in Salina. Community actions

are precursors to community changes and can function to reinforce the persistent action needed to bring about community changes. Although staff stated that they under-reported community actions, 61 community actions were reported in Dighton and 92 in Salina.

Were the goals of the partnerships important?

Selected community members rated the importance of the goals of the partnership. The response categories ranged from 1 = "very unimportant" to 5 = "very important." Nearly all of the respondents reported that the goals of the partnership were "important" or "very important" to reducing children's risks for CVD. The percentage of respondents rating the partnership goals as "important" or "very important" in Dighton and Salina, respectively, were as follows: revise school lunches (100%, 93%), increase physical activity (100%, 93%), increase nutrition education at school (100%, 86%), and develop a community partnership (92%, 64%). Overall, 100% of the respondents in Salina and 92% in Dighton reported that the community was better off because of the project.

Were community changes important to the mission?

Surveys of community members were also used to explore the importance of each community change in reducing children's risks for CVDs. Taken together, most respondents rated the changes as "important" or "very important" to reducing children's risks for CVDs in both Dighton (92%) and Salina (92%). Individual changes that were rated as "important" or "very important" to reducing risk by the highest percentage of respondents included changes in food preparation methods (e.g., rinsing ground beef in Dighton, 100%), reductions of fat in recipes (e.g., new cookies and casseroles in Dighton, 100%), and establishing ongoing fitness programs (e.g., family walking program in Salina, 93%). Although most respondents found all changes important or very important, fewest rated new single-day events (e.g., fitness activities at community events in Dighton, 67%) as "important" or "very important" to reducing children's risks for CVDs.

DISCUSSION

This manuscript describes two case studies that illustrate the potential effects of school and community partnerships for promoting cardiovascular health. The results suggest that both partnerships facilitated important changes in the school and the broader community. Implementation of the partnerships varied to reflect the differences in the two communities. Comparing rates of community changes and rates of community actions in the two communities suggests that fewer activities may have been needed to facilitate changes in the smaller community of Dighton. Perhaps tighter social networks in the small, rural community of Dighton enabled change to occur more efficiently.

There were a number of methodological challenges to evaluating these school and community partnerships for cardiovascular health. First, the case study design precludes

causal inferences about the effects of the intervention. Other correlated events, such as increased state- or county-wide interest in diet and exercise, could have contributed to the ease in which changes were made in each community.

Second, the monitoring system is, by design, a reactive measurement instrument. It is likely that recording events for the log monitoring system, such as community changes, prompted additional changes by staff and leadership. In addition, the activities and changes reported may be a conservative estimate of the actual numbers of activities provided and changes made, as it is likely that some events and changes were not reported.

Third, the monitoring system did not track the maintenance of changes over time. Although some of the changes were new one-time events, many were the first of a series of events or changes that have continued years after the grant period was completed (V James, L Henke, personal communication, May 1996).

Fourth, the monitoring system relied on self-reported data. Community changes are not all directly observed by the evaluators. To increase accuracy in reporting, evaluators verified a sample of reported community changes through meeting minutes, newspaper articles, and occasional direct observation. All such checks showed correspondence between events reported and other corroborating evidence that the event had actually occurred and was facilitated by the partnerships.

Fifth, few (26) community members provided feedback on the importance of the projects' goals and accomplishments. Although these data assisted project leadership in setting additional goals, the limited number and intentionally biased sample precludes generalizing the findings to all community members. In addition, community members surveyed may not have had special knowledge of the risk factors for chronic diseases. Future studies should consider expanding the distribution of assessments to include additional community members and experts in fields related to reducing children's risks for chronic diseases (e.g., physicians and researchers).

Sixth, because we lack strong community-level indicators for cardiovascular health, conclusions about the effects of the community changes on more distal health outcomes cannot yet be drawn. However, positive changes on the proximal indicators of nutrition knowledge, physical fitness, and consumption of lower fat foods were found.²⁴

Despite these limitations, this study contributes to our understanding of the processes and intermediate outcomes of school and community partnerships with the mission of reducing children's risks for chronic diseases. Data from these two case studies suggest that the goals and accomplishments of the partnerships were important to the community and were implemented as planned. Staff used data about the importance of goals and accomplishments to set priorities and continue to implement community changes important to their mission. Regular discussions of the cumulative number of community changes, community actions, and services provided also contributed to continued progress of the partnership by providing opportunities to celebrate successes and redirect efforts, if necessary.

Future research is needed to further understand and improve strategies for reducing children's risks for chronic diseases. First, subsequent research should attempt to identify comparison communities to control for changes in secular trends. Second, future research should identify community-level indicators, such as the sale of whole milk versus skim milk, and collect such data for intervention and comparison communities to examine the community-level impact of such school and community partnerships.¹⁸ Finally, future research should establish the maintenance or durability of the changes produced by partnerships.

The collaborative partnerships in Salina and Dighton used elements of a variety of models, including collaborative planning,^{3,7} extensive citizen involvement,^{9,11} and support and evaluation systems.^{3,11} Under the auspices of Kansas LEAN, this school and community partnership model is being replicated in six communities in Kansas. This replication provides additional opportunities for expanding our understanding of the strengths and challenges of community partnerships for reducing risks for chronic diseases among children.

Risks for chronic disease and associated behavior patterns for diet and physical activity are established early in life. The partnerships sought to increase access and opportunities for improved diet and exercise: the aim was to make healthy choices the easy choices.²² These school and community partnerships contributed to improved diet, physical activity, and other protective factors for CVD among children and adults. Perhaps collaborative partnerships will serve as effective catalysts for change, building community capacity to address a variety of health and development concerns.

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Reducing Elementary School Children's Risks for Chronic Diseases through School Lunch Modifications, Nutrition Education, and Physical Activity Interventions

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ABSTRACT Many behaviors, such as physical inactivity or a poor diet, that put adults at risk for chronic diseases are established in childhood. This manuscript describes the outcomes of a comprehensive school health project, the Kansas LEAN School Intervention Project. The Kansas LEAN School Intervention Project in Salina and Dighton had four components, three of which were school based: (a) modified school lunches, (b) enhanced nutrition education, and (c) increased opportunities for physical activity. The fourth component, actions taken by a community partnership, is described elsewhere. Data from two case studies were used to address three primary evaluation questions: (a) did changes in the school lunch menu reduce the fat content yet maintain calories in meals served? (b) did nutrition knowledge, skills, and attitudes of students improve? and (c) did students' physical fitness improve? The findings suggest that the project was successful in reducing the fat content in school lunches in both communities from baseline levels of approximately 38% calories from fat to the target goal of 30% calories from fat during the 1993-94 school year. The schools also maintained adequate calories for students in this age group. Students' knowledge, skills, and behaviors related to nutrition as well as their physical fitness improved in both Kansas communities. The strengths and limitations of this strategy of making healthy choices easy choices through school-based intervention are discussed.

(JNE 29:196-202)

INTRODUCTION

Heart disease is the leading cause of death in the United States.¹ Poor diets and physical inactivity, which are risk factors for cardiovascular diseases, are established early in life.²⁻⁴ Research suggests that approximately 50% of children have at least one modifiable risk factor for coronary heart disease by age 12.⁵ Schools are an important channel for prevention programs. Approximately 60% of school children in the U.S. participate in school lunch programs and these students receive more than one-third of the Recommended Dietary Allowances for food energy and key nutrients at school.⁶ Schools also have the capacity to disseminate nutrition education and promote physical activity, reaching large numbers of children.

Several school- and community-based health initiatives have successfully reduced risk factors for chronic diseases among youth. These have used a variety of strategies, including modifying school lunches,⁷⁻¹⁰ increasing physical activity,⁹⁻¹² providing nutrition education,¹³⁻¹⁵ and implementing mass media campaigns.^{14,16,17} Few studies, however, have examined the impact of multiple components of a school intervention within the context of a community partnership to reduce risks for chronic diseases.

This paper describes the evaluation of three components of a comprehensive school health intervention designed to change the environment to affect health-related behavior and outcome by (1) modifying school lunches, (2) enhancing nutrition education, and (3) increasing opportunities for physical activity. Community changes introduced by establishing a community partnership to support the changes are described elsewhere.¹⁸ First, we describe the context and collaborators of the project. Second, we describe the major components of the Kansas LEAN School Intervention Project. Third, we describe the measurement system and results for the key evaluation questions. Last, we discuss the challenges and opportunities of designing and evaluating comprehensive school interventions.

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Work was conducted in the Kansas communities of Salina and Dighton in conjunction with Unified School Districts 305 and 482.

This project was supported, in part, by Kansas Health Foundation, Wichita, Kansas. Kansas Health Foundation is a philanthropic organization whose mission is to improve the quality of health in Kansas. The Kansas Health Foundation (KHF) provided a grant to the Work Group on Health Promotion and Community Development, Schiefelbusch Institute for Life Span Studies at the University of Kansas. This project was also supported by Kansas LEAN, a program of the Bureau of Chronic Disease and Health Promotion, Kansas Department of Health and Environment (KDHE). This work benefited from the support of Steve Coen, Senior Program Officer at the KHF, and Paula Marmet, Director, KDHE Bureau of Chronic Disease and Health Promotion.

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METHODS

Kansas LEAN,¹⁹ a program of the Kansas Department of Health and Environment, Bureau of Chronic Disease and Health Promotion and the Kansas Health Foundation, designed and facilitated the implementation of the Kansas LEAN School Intervention Project. The Kansas Health Foundation provided funding over 2 years to design and pilot test the project. The Kansas LEAN Director, a registered dietitian, provided project oversight and direction. Two registered dietitians worked on site for approximately 20 to 30 hours per week assisting foodservice staff, classroom teachers, and physical education (PE) teachers in conducting nutritional analysis of menus, modifying menus, implementing enhanced nutrition education in classrooms, and enhancing fitness activities. The Work Group on Health Promotion and Community Development at the University of Kansas (KU Work Group) provided technical assistance and evaluated the project.

Communities and schools. The communities of Salina and Dighton, and their respective school districts, agreed to implement the program. The two communities were selected

to represent two different-sized communities and school districts in Kansas. Salina (population 42,300) is relatively urban with over 6000 students and 15 schools in the district. Cooks prepared school meals for the district in four centralized kitchens. By contrast, Dighton (population 1400) is a rural, geographically isolated community with an economy based on farming and ranching. The school district served 400 students and meals were prepared at one central kitchen. In Salina, all 4th graders in one elementary school ($N = 74$) received the intervention; 4th-grade students ($N = 62$) in two other schools in Salina served as a comparison group. In Dighton, all 5th graders ($N = 34$) participated in the intervention. Since there was only one elementary school in Dighton, a comparison group of 5th graders was not available. PE teachers in both schools, 4th-grade teachers in Salina, and 5th-grade teachers in Dighton agreed to participate in designing and implementing the project.

School-based components. Table 1 outlines the three school-based components implemented by each community. The implementation of each component varied between the two communities and is briefly described below.

Table 1. School-based components and elements of the Kansas LEAN School Intervention Project to reduce children's risks for chronic diseases.

<i>Components</i>	<i>Elements</i>
Modify school lunch	<ul style="list-style-type: none"> (a) Recording nutritional content of menu items (e.g., measuring or weighing and recording ingredients) (b) Determining nutritional content of products (e.g., requesting dietary information from food vendors) (c) Receiving feedback (before and after modifications) on the percent calories from fat and calories in menu items and menu combinations (d) Modifying food preparation techniques (e.g., rinsing cooked ground beef in hot water before serving) (e) Modifying recipe ingredients (e.g., substituting nonfat yogurt for mayonnaise in salads, dips, dressings, and tartar sauce) (f) Modifying products ordered from vendors (e.g., lower fat fish sticks) (g) Changing menu combinations to reduce percent calories from fat in overall weekly menus (h) Locating or assisting vendors to develop new products (e.g., developing products with a higher percentage of wheat flour)
Provide nutrition education	<ul style="list-style-type: none"> (a) Assisting teachers and administrators to integrate the American Cancer Society's Changing the Course (CTC) into health units or core subjects (e.g., math, English) (b) Providing training for teachers on nutrition and using CTC (CTC included individual worksheets, food tasting, small-group activities, field trips, and class discussion) (c) Arranging for coordinators, community volunteers, or foodservice employees to serve as role models and provide general assistance (d) Facilitating field trips and special activities (e.g., supermarket tours, lunch at McDonald's) (e) Providing incentives for teachers to implement the curriculum (e.g., \$100 for classroom materials)
Increase physical activity	<ul style="list-style-type: none"> (a) Installing physical fitness stations in each classroom, which consisted of individual workbooks (e.g., readings on fitness, songs about nutrition) and optional physical fitness activities (e.g., stretching, sitting, and reaching) (b) Initiating a noncompetitive incentive system based on students' personal goals (e.g., students earned class parties for using the fitness stations) (c) Training of PE teachers in how to increase the amount of time students engaged in cardiovascular fitness activities (d) Providing lesson plans for PE teachers with enhanced variety and intensity of physical activity (e.g., games, music, and dance)

School lunch. Changing school lunches to reduce dietary fat while maintaining both adequate calories and food acceptability was one of the primary goals of this project. The director of Kansas LEAN and two on-site coordinators provided training, technical assistance, and direct support to foodservice professionals in the school districts. Coordinators used workshops, one-on-one training, coaching, and modeling to train foodservice workers. The training was informal and collaborative, and changes were made gradually as foodservice staff became comfortable with new food preparation techniques and products. Foodservice staff made many recommendations that were incorporated into routine kitchen practices. To maintain acceptability of the new foods served, potential food products and recipes were evaluated with food tasting panels consisting of students, parents, foodservice staff, and teachers.

The foodservice programs in Salina and Dighton differed in size, location, and experience of foodservice professionals. Assistance provided to the two programs differed to respond to the unique challenges and opportunities in each community. For example, training in Dighton focused on food preparation techniques to lower fat because nearly all menu items were prepared from scratch. By contrast, food served in the Salina district was purchased frozen from vendors, prepared in central kitchens, and delivered to school cafeterias. Accordingly, training in Salina focused on ordering from vendors and locating or assisting vendors in the development of new products.

Nutrition education. Project coordinators collaborated with elementary school teachers and school administrators to implement the American Cancer Society's (ACS) nutrition education program, *Changing the Course* (CTC).²⁰ The goals of the curriculum were for students to eat a variety of fruits and vegetables, more high-fiber foods, and fewer higher fat foods. The curriculum focused on teaching healthy food choices, rather than labeling foods as "good" or "bad." The curriculum was behaviorally oriented and activity based. The ACS provided teachers with the CTC Upper Elementary curriculum and teachers' handbooks.

Physical activity. Each community enhanced opportunities for physical activity by installing classroom fitness stations and modifying PE classes to increase the proportion of time spent on cardiovascular fitness activities.

Evaluating the school-based components of the partnerships. Evaluators and project staff designed the evaluation system to examine outcomes of the project and to facilitate continuous improvement of the project's efforts. There were several key evaluation questions of interest to the staff and leadership of the community partnerships. Questions related to the school components included (a) did changes in the school lunch menu reduce the fat content and calories in foods served? (b) did nutrition knowledge, skills, and attitudes of students improve? and (c) did the physical fitness of students improve? To address these key questions, the eval-

uation system used three measurement instruments: (a) menu analysis, (b) a review of foodservice records, and (c) student surveys on nutrition and fitness. In addition, evaluators used a measure of community change²¹ to track implementation of innovations in nutrition education, school lunch, and PE; community change data are reported elsewhere.¹⁸ The measures, methods for data collection, feedback systems, and statistical analysis are described in the sections below.

Menu analysis. School foodservice menus were analyzed using Nutritionist IV,²² a computerized menu analysis program that used an extensive database of nutrients for specified foods. Menus were analyzed in several stages: (1) local foodservice employees recorded foods included in each recipe by weighing or measuring quantities, (2) the dietitian entering the data contacted local foodservice employees to clarify quantity or ingredient information, as necessary, (3) foods for each recipe were entered into Nutritionist IV, (4) printouts of the nutrients for each recipe and menu combinations were sent back to foodservice employees, (5) foodservice employees modified the menus to reduce dietary fat and maintain calories, and (6) steps 1 and 5 were repeated until percent of calories from fat and total fat were within target. Prepared products were entered into the database using manufacturers' nutritional analysis data. A registered dietitian conducted an analysis of recipes and menus for all menu combinations during baseline (3 months in Dighton and 5 months in Salina) and after menu changes (7 months in Dighton and 8 months in Salina).

Review of foodservice records. Archival records were reviewed, including school attendance, meals served in the lunch program, food costs, and personnel expenses. Where possible, data from the records were used to calculate the cost and percentage of students participating in the school lunch program.

Student surveys. Surveys were used to assess students' knowledge, skills, and attitudes related to nutrition and students' physical fitness. Surveys were administered to students before and after the intervention was implemented. Paper and pencil assessments developed to accompany the CTC Lower (66-item) and Upper Elementary (53-item) curricula were used to assess the effectiveness of the nutrition education curriculum in Salina (Lower) and Dighton (Upper). Teachers administered the assessments, which took about 45 minutes to complete, during school hours. The assessment included items related to knowledge (e.g., "It is a good idea to eat a variety of foods each day"), skills (e.g., "Identify high-fat foods"), and attitudes (e.g., "All people like the same foods"). A formative evaluation of the CTC curriculum²³ reported that the test items were written at age-appropriate levels and that teachers were highly satisfied with the curriculum. Researchers who conducted this evaluation also used a review of experts to establish that the assessment had high content validity and calculated Cronbach's alpha reliability

coefficients, which were .79 and .92 on the upper and lower upper elementary assessment, respectively.²³

The Amateur Athletic Union (AAU) physical fitness assessment²⁴ was used to assess the impact of increased opportunities for physical activity on students' fitness. Project staff and a fitness expert trained the PE teachers to administer the assessment, a behavioral observation designed to measure students' strength, muscular endurance, cardiorespiratory endurance, and flexibility. Students demonstrated their fitness in five required events (such as pull-ups and endurance runs) and six to seven optional events (such as long jumps and sprints). Students' performance levels were categorized based on age and national AAU fitness standards.²⁴ Attainment and Outstanding levels from the AAU corresponded to the 45th and 80th percentiles of sample scores.

Feedback. The intervention model called for regular reports on all key measures, including (a) menu analyses; (b) students' nutrition knowledge, skills, and attitudes; and (c) students' fitness. Regular feedback on menu revisions was delayed until late in the project because of the amount of training involved in getting the menu reporting and data entry systems in place. Students' levels of nutrition knowledge, skills, and attitudes as well as fitness were graphed and fed back to project staff after assessments were administered.

Design and statistical analysis. An interrupted time-series analysis²⁵ was used to analyze data on nutritional content of menus over time in Dighton and Salina. Individual level data on students' knowledge of nutrition and levels of physical fitness were assessed using pretest-post-test group designs²⁵ with a comparison school in Salina and replications of findings in Dighton. Statistical tests, performed using SPSS for Windows,²⁶ were used to conduct statistical analysis of individual level data. A two-tailed dependent t-test²⁷ was used to examine the differences before and after the intervention was implemented for (a) nutrition knowledge in Dighton and (b) a fitness indicator in Salina. Effect sizes were analyzed using the *d* statistic.²⁸ The McNemar Change Test²⁹ was used to test differences in fitness scores in Dighton. An *f* ratio²⁸ was used to analyze differences in nutrition knowledge between students who received the intervention and those who did not. An R^2 proportion was used to measure the strength of association between the variables.

RESULTS

This section describes the findings organized under several key evaluation questions about the school-based components of the partnerships.

Did changes in the school lunch menu reduce the fat content and maintain calories in foods served? After the intervention was implemented, the fat content of school lunches was reduced to target levels while maintaining or

increasing total calories in both sites. Figure 1 shows daily averages of calories and percent calories from fat in the school lunch menus served during the 1993–94 school year and percent calories from fat during baseline for the project in Dighton. Baseline levels of percent calories from fat were calculated using menu data from the first 3 months of the grant period (October–December 1992). Mean percent calories from fat fell from baseline levels of 40% to the target level of 30% during the 1993–94 school year. After menu modifications, total calories ranged from 767 kcal to 830 kcal, which is above the target level of 750 kcal.

Figure 2 shows trends in average daily caloric and fat content of the Salina school lunch program. Mean percent calories from fat decreased from baseline levels of 38% to the target level of 30% after menus were modified. Mean calories per month increased from baseline levels of 738 kcal to 821 kcal in the second year of the project.

Reviews of foodservice records showed that participation in the school lunch program remained relatively constant in the two communities as the menus changed. The accounting system in Salina did not separate expenses in a way that allowed researchers to calculate the cost per meal. Data on the cost of the lunch program were available for Dighton and showed that the cost increased less than 5%. This may be due to economic inflation and an increased number of portions consumed by each student (e.g., more students going back for "seconds"), and not to higher costs of lower fat menus.

Did nutrition knowledge, skills, and attitudes of students improve? The percentage of youth who answered the nutrition knowledge, skills, and attitude questions correctly or favorably increased significantly from pretest to post-test in Dighton. In Salina, intervention students' scores were significantly higher when compared to students who did not receive the curriculum in Salina. In Dighton, intervention students' performance on the Upper Elementary Assessment increased from pretest (71%) to post-test (84%), and the increase was maintained at a 1-year follow-up (83%). Changes from pretest to post-test were statistically significant

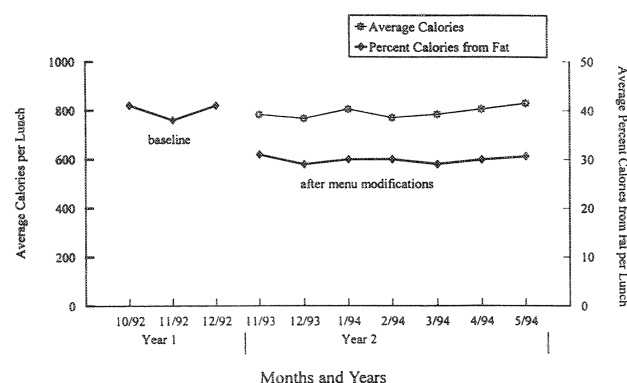


Figure 1. Trends in fat and calorie content in school lunches for Dighton.

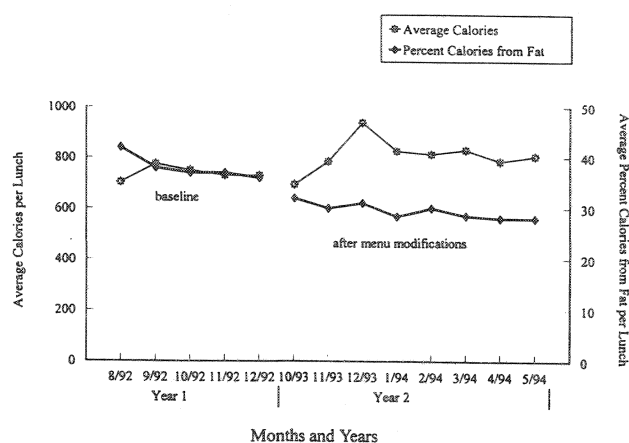


Figure 2. Trends in fat and calorie content in school lunches for Salina.

($t[33] = -6.64, p < .0001$) with a very large effect size (d statistic = 6.9). These findings were replicated with 5th graders receiving the same curriculum in the following year; their knowledge increased from pretest (68%) to post-test (83%). In addition, the lower performance scores (66%) of 5th graders (who had not received the curriculum) at the end of the previous year suggested that the findings were due to the curriculum rather than maturation.

Fourth-grade students who received nutrition education in Salina scored higher at post-test on the Lower Elementary Assessment (82%) than students who did not receive the enhanced nutrition education (74% and 72%). Difference between these scores is statistically significant ($F[2,133] = 20.179, p < .0001$) with a large proportion of variability due to differences between groups ($R^2 = .2328$).

Did youth physical fitness improve? Analysis of the fitness data suggests that fitness levels of the intervention students increased from pretest to post-test and, in Salina, intervention students were more fit than similar students who did not participate in the project. The percentage of Dighton students experiencing the intervention who performed at or above the AAU Fitness Attainment level increased from pretest (18%) to post-test (29%). These differences, however, were not statistically significant ($p = .29$). The small number of intervention students may not have provided enough power to detect any potential statistical significance.

The AAU Fitness Assessment was modified slightly in Salina. In the "Endurance Run" event, students ran 1 mile rather than the standard 3/4 of a mile. Overall performance awards, therefore, could not be determined for students in Salina. The endurance run event was selected for analysis because it is a measure of cardiorespiratory endurance and is the event that is most closely linked to reduced risks for cardiovascular diseases. In Salina, compared to same-grade students in comparison schools, intervention students showed a larger reduction in the amount of time taken to complete

the mile run from pretest to post-test. Girls in the intervention group reduced their average time by 1.21 minutes while girls in the comparison group reduced their average time by only 0.32 minutes. Boys in the intervention group reduced their average time by 1.76 minutes while boys in the comparison group reduced their average time by 0.64 minutes. The differences between comparison and intervention students' performance changes from pretest to post-test were statistically significant for both girls ($t[48] = 2.60, p = .012$) and boys ($t[59] = 2.19, p = .033$).

DISCUSSION

This manuscript describes two case studies of the school-based components of the Kansas LEAN School Health Project. The results suggest that the projects in Salina and Dighton facilitated important changes in the school to reduce youth risks for chronic diseases. Each community facilitated changes of the school lunch menus, including adopting new food products, revising recipes, and developing new menus. These changes resulted in reduced fat and maintained calories in school lunch menus without negatively influencing costs or participation. Further, nutrition knowledge, skills, and attitudes as well as physical fitness improved among participating students in both schools.

There were several challenges to evaluating the school-based components of these partnerships. First, without randomized control groups, conclusions about the strength of the intervention's effects are limited. Other events, such as the national interest in diet and exercise, could have contributed to the effects. However, attempts were made to control for such confounding variables, such as using comparison schools in Salina and comparison groups in Dighton, for the nutrition education and fitness assessments. No data from control or comparison groups were available for changes in the school lunches. Although comparison groups would have helped rule out other possible explanations of the observed effects, establishing a control group was not seen as feasible given the complexity of conducting nutrient analysis.

Second, a strength of the AAU Physical Fitness Assessment is the reliance on direct observation of students' fitness rather than self-reports. However, one drawback is that students may not consistently perform to the best of their ability and single assessments may not accurately assess their fitness. The assessment is time consuming, prohibiting multiple administration in this community demonstration.

Third, this study assessed changes in students' knowledge, skills, and behavior related to nutrition using assessments developed and tested by other researchers. Since the assessments were not pilot tested locally, our understanding of the findings may be limited. In addition, to maintain consistency across multiple testing of the intervention students in Salina, the Lower Elementary assessment was used to assess 4th graders, who were beyond the recommended age range for this assessment.

Fourth, the accuracy of the nutritional analysis was not systematically verified by laboratory studies. Further, the measurement system was intentionally reactive: documenting the fat content of foods served was intended to draw attention to the foods' nutritional content and prompt kitchen staff to modify menus. In addition, as a result of multiple computer-related problems, summarized nutrition information was not available to project staff until after the project was completed; foodservice staff made menu and recipe revisions without complete and ongoing information on the fat content of menus. Overall, however, nutrient analysis data collected over a 2-year period strongly suggest that the project successfully met its goals for revisions in school lunches. Finally, data on the actual consumption of school lunches are not available. Plate waste studies were attempted but abandoned due to large variability in consumption and a lack of staff time and resources to conduct frequent plate waste studies. However, taste testing and sampling were conducted with students and foodservice staff to help assess the palatability and the likelihood of consumption of the school lunches.

Despite these limitations, the findings from this multiple case study contribute substantially to our understanding of nutrition education, physical activity opportunities, and changes in foods served during school lunch to reduce children's risks for chronic diseases. The data suggest that the major components of the intervention were implemented, and positive changes in nutrition knowledge and physical fitness were found among participants. Further, increasing opportunities for healthier school lunches increases the likelihood that children might consume fewer calories from fat when in school.

Future research is warranted to extend understanding about and improve methods for reducing children's risks for chronic diseases. First, future research should attempt to identify comparison communities. Second, future research should attempt multiple assessments of physical fitness and food consumption. The Kansas LEAN School Intervention Project is being replicated in six communities in Kansas. These applications of the school and community components should help to extend our understanding of the strengths and challenges of such interventions that have the mission of reducing risks for chronic diseases among children.

The overarching strategy of the Kansas LEAN School Intervention Project is to change the environmental context for children's health-related behaviors. By modifying school lunches, the opportunities for selecting (and potentially eating) lower fat foods is enhanced. By enhancing students' knowledge and skills through behaviorally based nutrition education, selections of healthy food choices may be improved. By increasing opportunities for school-linked physical activity, children are more likely to engage in those behaviors associated with fitness. Rather than blame children (or their parents or teachers) for engaging in health risks, this approach demonstrates how environmental changes may improve health behavior. In so doing, it illustrates a fundamental tenant of public health: make healthy choices easy choices.

ACKNOWLEDGMENTS

This project was made possible by the concern and effort of people in the communities of Dighton and Salina, Kansas. Teachers, administrators, foodservice personnel in Dighton and Salina Unified School Districts, and youth and parents were instrumental in making this project a success.

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Institutionalizing community change: An empirical study with a community-based project for reducing risks for chronic diseases.

Harris, K. J., James, V., Richter, K. P.,
Paine-Andrews, A., Fawcett, S. B.,
Johnston, J. A.

Poster presented at the 125th annual meeting of the
American Public Health Association, Indianapolis, IN,
November 1997

Dighton partnership

- Funded 1992 - 1994
 - Part-time coordinator
 - Teacher incentives
 - Menu analysis
 - Data collection & analysis
- Maintenance measured 3 years later (1997)

What did we measure?

- Community changes (N=68)
 - New or modified programs, policies, practices
 - Intended one-time events removed
- Examples
 - Lower fat milk served
 - LEAN Kids track meet
 - Resource materials available

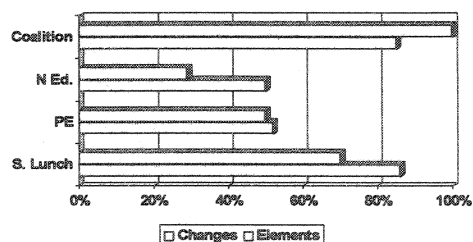
What did we measure?

- Project's core elements (N=30)
 - Related to:
 - Coalition
 - School lunch
 - Nutrition education
 - Physical activity
- Examples
 - Classroom activities related to nutrition
 - Facilitating leadership in the community

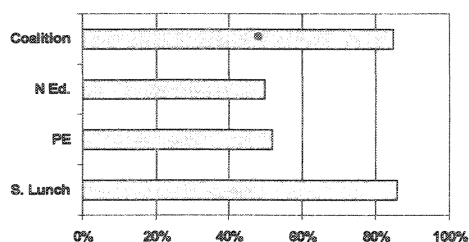
How did we measure it?

- Written key informant survey
 - "Generally, is it still happening?"
- Administered to 14 community experts
- 4-6 experts per component
- Confidential

What was still happening?



Changes still happening



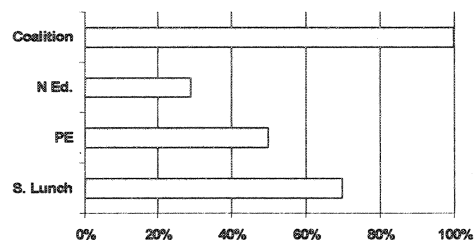
Example changes maintained

- Standard recipes
- CTC nutrition education
- Students earn points for home exercise
- Stronger girls' athletic program
- Juice machine

Example changes not maintained

- Food service newsletters
- Recess doesn't follow lunch
- School parties have health snacks
- Community fitness trail

Elements still happening



Example elements maintained

- Recording nutritional content
- Modifying PE to increase activity
- Classroom nutrition activities
- Changes in the community to support school changes

Example elements not maintained

- Promoting lunch program
- Fitness stations
- Training PE teachers to increase fitness
- Integrating NE into core subjects
- Teacher incentives

Suggestions

- Target future implementers directly
- Develop cheer leaders
- Tie changes to:
 - QPA
 - Curriculum
 - Outcomes

Suggestions

- Make changes visible
- Plan for minimal resources needed



Historical Perspective: The First Step Up and Step Out

The First Step Up and Step Out

Youth who lack health promoting behaviors, knowledge, skills, and values are at risk for development of chronic diseases, including heart disease, stroke, and some cancers. In 1992, Kansas LEAN identified a means to address the national concern about the health and well being of children and youth in this country by initiating a two-year pilot project. The mission of the project was to develop a model program for children that would lead to life-long healthy choices and behaviors.

The strategy of the intervention was to change the environmental context for children's health behaviors. It included school-based components and a community partnership. Together these components worked to reduce health risks through enhancing knowledge and increasing opportunities for making healthy eating and physical activity choices.

What is Kansas LEAN?

Kansas LEAN (Leadership to Encourage Activity and Nutrition) is:

- A partnership facilitated by the Kansas Department of Health and Environment, Bureau of Health Promotion, providing leadership and coordination of nutrition and physical activity interventions.
- A statewide coalition of organizations, businesses, agencies, and school districts that collaborate to develop and implement community-based programs for the purpose of decreasing the risk of heart disease and cancer throughout the population.
- A coalition that works to maximize the use of resources, providing technical support to communities and partners.
- Primarily funded by grants from the Kansas Health Foundation, United Methodist Health Ministry Fund, Centers for Disease Control and Prevention, and the National Cancer Institute.

Phase 1 Kansas LEAN School Health Project

Phase 1 of the Kansas LEAN School Health Project was conducted for a two-year period from 1992-1994.

The project, called the Kansas LEAN School Intervention, was piloted in Salina and Dighton, Kansas.

- Salina was chosen as a community representative of many urban Kansas communities
- Dighton was selected as a typical small, rural community

Collaborators included: Kansas LEAN, a program of the Kansas Department of Health and Environment, Bureau of Chronic Disease and Health Promotion (KDHE-BDHP), the Kansas Health Foundation (KHF), Dighton Public Schools (USD #482), Salina Public Schools (USD #305), and the Work Group on Health Promotion and Community Development at the University of Kansas.

Mission: To improve the health of elementary school students in Kansas by modifying school lunch menus, enhancing nutrition education, increasing physical activity levels, and developing a community coalition to support the efforts in schools and advocating for environmental change in the school and community in the areas of nutrition and physical activity.

Project goal: To reduce the risk of school-age youth for heart disease and some cancers through changes in diet and exercise habits.

Target populations: Elementary school children in fourth, fifth, and sixth grades.

Technical assistance: A Kansas LEAN contracted site coordinator 20-30 hours per week.

Strategies:

Four areas of focus for environmental change were targeted for goal setting interventions. The four areas of focus were called "components," and strategies were established for each.

- Community Coalition: *Develop a community coalition to support changes*
- Nutrition Education: *Increase nutrition education and healthy eating*
- Physical Activity: *Increase physical fitness activities*
- School Meals: *Modify school meals*

Evaluation Methods: Monitoring and feedback system; knowledge, attitude, and behavior surveys; analysis of school meal program; nutrient analysis of school menus; physiological assessments of cholesterol levels, skinfold, height/weights; and physical fitness. Evaluation was conducted by the Work Group of Health Promotion and Community Development at the University of Kansas.

Resources: Amateur Athletic Union (AAU) Physical Fitness Assessment American; Cancer Society's "Changing the Course" nutrition education curriculum; and Nutritionist 4 computerized menu analysis.

Outcomes: Increased nutrition knowledge; increased fitness scores; lower fat school meals (participation maintained); 179 community changes over two years in Dighton and 72 community changes in Salina over two years; and coalition members and outside experts were satisfied with project accomplishments. When participants in the two communities were surveyed, the highest mean importance ratings were for outcomes that had a direct impact on reducing the fat content of school lunches and on increasing physical activity.

Lessons learned include:

Community coalitions

- a. Communities are unique and the needs of the community are reflected when they are involved in decision-making.
- b. Financial resources are helpful, but volunteer energy, creativity, time, and dedication cannot be overlooked as factors that sustain an initiative.
- c. Invite admirers, critics, friends and competition when developing a coalition. The all have something to contribute and need to be involved to sustain the initiative.
- d. An effective coalition takes actions and does not simply act as an advisor.

Nutrition education

- a. Education and curriculum provide education but do not guarantee behavior change. Constant reinforcement, healthy role models (everywhere!), and acceptance of personal responsibility increase the likelihood of behavior change.
- b. There are many different ways to incorporate nutrition education! Options are limited only by the creativity of the teachers and needs of the students.
- c. Nutrition education is accepted and enjoyed by students when it is integrated into other curricular areas and becomes part of their lives.
- d. Teachers do not automatically possess current and accurate nutrition information despite exposure to nutrition information, accurate and inaccurate, in the popular press. It is important that nutrition

- professionals, Registered Dietitians, help evaluate and recommend/develop curricula and help train teachers.
- e. Effective nutrition education is fun for teachers and students alike.

Physical activity

- a. A physical education curriculum can be made fun, emphasize positive self-esteem, promote fitness, and provide students with a sense of personal responsibility.
- b. Education and patience are needed to alter the stereotypical attitude that physical education is recess or sports practice.
- c. There are unlimited opportunities for physical activity just waiting to be explored. Every age, social, and professional group should be involved.
- d. Classroom teachers are generally willing to provide support for physical activity programs with proper training and tools.

School Meals

- a. Pre-existing problems or constraints may need some resolution before achieving goals, i.e., no recipes, sanitation issues, lack of equipment or product, lack of administrative support, structure of meal delivery/service system.
- b. Significant change takes time, technical assistance, and follow-up. Timelines should be realistic to prevent frustration and a feeling of failure.
- c. Food consumption data is important but difficult to collect.
- d. Community, staff, and administrators need some understanding of school food service systems...limitations and regulations...for realistic expectations.
- e. Classroom nutrition education and the school meal program both benefit with mutual support and reinforcement.

For more information about Phase 1, refer to the Journal of Nutrition articles that follow.

Sustainability of the pilot project



Following Phase 1, as the project grew in numbers and visibility, the question was often raised, "This is a great concept, but can a project like this be sustained?"

The project evaluation team accepted that challenge and three years after formal funding had ended, they conducted a key informant survey of the community members that had been actively involved in the initial project in Dighton, Kansas.

The survey results indicated that 60% of the project's elements, and 66% of the school and community based changes were sustained three years after the formal completion of the project. The data showed a strong relationship between maintenance of components and the number of sustained changes.

The results indicated that changes were most likely to be sustained if:

- They are visible
- There is a direct link of community support to identified project objectives
- Change is connected to identified school outcomes
- Minimal resources are required
- Even the smallest successes are recognized as achievements

Kansas LEAN School Health Project Phases

The Kansas LEAN School Health Project has gone through two complete phases and is currently in phase three. Research, evaluation, and experience have been used in each phase to continuously enhance the intervention and reduce the level of technical assistance required.



Phase 2

In 1995, the title of the project was changed to the Kansas LEAN School Health Project and six sites were funded. These sites in Kansas included:

- Andover
- Arkansas City
- Holcomb
- Pierceville-Plumel
- Rose Hill
- Winfield



Changes from Phase 1:

- It became clear during Phase 1 that an emphasis on forming partnerships to “link” one component with another was key to creating change. “Linking” to increase opportunities for partnerships, for repeating messages among the components, and for strengthening the team spirit was emphasized in Phase 2.

- There was a decrease in the level of direct technical assistance. A Kansas LEAN contracted registered dietitian provided assistance to an on-site community-based coordinator 20-30 hours month.
- There was an increase in the length of the intervention, from 2 to 3 years.
- Pyramid Pursuit nutrition education curriculum was used.
- FITNESSGRAM physical fitness testing was used.
- An implementation manual, **Step Up and Step Out** was developed to enable more communities to use School Health Project lessons learned and creative ideas in developing their own plans.

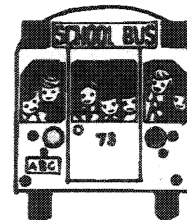
Lessons learned include:

- It is important to celebrate each small step to success
- Movement in the classroom is a recognized factor to increase learning
- Physical educators were interested in finding ways to measure lifetime physical activity attitudes/skills rather than fitness which varies according to uncontrollable factors such as genetics, age, and sex
- An active, well-functioning coalition is important for supporting change

Phase 3

In 1997, Phase Three communities were added to the number of sites that identified the need for changes related to nutrition and physical activity in their communities. Sites to join the School Health Project at that time were:

- Hutchinson
- Marysville
- Pratt
- Wamego



The major differences from Phase 2 to Phase 3 of the Project are:

- An increase in the length of intervention from 3 to 4 years.
- A focus on the development of the community coalition in year 1, prior to implementation of the other components. The coalition is a key factor in developing leadership and community support, both necessary for environmental change and project sustainability.

- The school district contracts the services of a registered dietitian (with training by Kansas LEAN) to analyze school menus and recipes.
- Two on-site visits by the Kansas LEAN staff team and consultants. Technical assistance through conferences, individual phone consultation, and phone conferences.
- An implementation manual.
- Use of ACTIVITYGRAM to track activity rather than evaluate fitness.

Development of the community coalition prior to implementation of the other components was the focus of the first year because it is such a key factor in developing leadership and community support, both necessary for environmental change and project sustainability.

Kansas LEAN School Health Project staff and consultants

The Kansas Health Foundation, a philanthropy dedicated to improving the health of all Kansans, is providing funding for this project with technical assistance to the project director and staff. Steve Coen, Vice President for Administration and Marni Vliet, President and CEO help to guide the project and provide for technical assistance.

Judy Johnston, MS, RD, LD, the Kansas LEAN Director and the Project Director (until July 1999) succeeded in making the vision a reality. Her creativity and professional dedication helped make possible an initiative that has made a significant difference for children in Kansas. Judy Johnston is continuing work to reduce the health risks for children. She works with Kansas State University Extension and a National Institutes of Health grant.

Vickie James, RD, LD (Phase 1, 2, 3), Lori Henke, RD, LD (Phase 1), and Claudia Hohnbaum, MA, RD, LD (Phase 2, 3), are consultants who provided training, on-site consultation and/or coordination to schools and communities. Claudia Hohnbaum was acting School Health Project Coordinator from August 1999 to April 2000 until Kathy Summers, new director for Kansas LEAN assumed responsibilities. Claudia Hohnbaum continues to serve as a consultant for Phase 3. Vickie James has had the good fortune to mobilize the Kansas LEAN School Health Project beyond Kansas to children, schools, and families across the country. She is now directing a national initiative, *Cooking Light's* Healthy Kids Challenge and continues to be involved with the School Health Project.

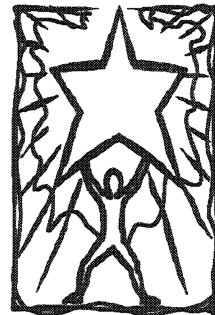
Before moving to western Kansas, Connie Van, RD, LD was the Technical Assistance Coordinator for the project. She now provides school assistance and evaluates nutrient analysis for each of the Phase 3 schools. Pat Cox, a Kansas LEAN assistant until September 1999 had responsibilities that included assistance with nutrient analysis, staff support, and coordination of activities.

John Noble, PhD, Assistant Professor, University of Nebraska at Omaha, School of Health, Physical, Education and Recreation provides technical assistance for physical activity.

Evaluation originally provided by the Work Group on Health Promotion and Community Development at the University of Kansas, is now directed by Kansas State University, Department of Kinesiology under the direction of David Dzewaltowski, PhD.

Kansas LEAN School Health Project schools and communities deserve recognition for their perseverance and overwhelming creativity in the fledgling stages of this rewarding model! This manual would not have been possible without their commitment!

**Communities have reached out
and touched the stars!**



Chapter 1 Module 1



Event Planning Tool

Title Of Program/Project/Event: (check type of activity along with title)

☐ Media ☐ School ☐ Business ☐ Community

Target Audience/Numbers Forecasted: (check all planned for your activity)

☐ Students ☐ Parents ☐ Teachers ☐ School meal director and staff
☐ School administrators ☐ Business/community leaders/community at-large

Outline/Description/Objectives:

Marketing Plan:

Permits Or Permissions Required:

Resource Materials/Supplies/ Handouts/Food/:

Costs/Funding Source:

Manpower Needed:

Space/Time/Date Requirements:

Prep Time:

Alternate Plan:

Comments:



Recruiting Worksheet

Use this worksheet to begin your recruiting plan. Check the following steps as you complete them.

- ☐ Potential partners/members are identified
- ☐ Appointments are made
- ☐ Win/win situations are identified

Potential partners/members	Phone number and appointment date	Win/win situation

Leadership Worksheet

Is Your Coalition in a Good Position to Develop Leaders?

The following worksheet lists organizational structure factors that need to be in place to develop good leadership. Go through the following questions as a checklist to see how your coalition is doing and what you might need to work on.

1. Ask each question. If the answer is yes, place a checkmark in the box. A yes indicates no further action needed. An unchecked box means "no" and indicates there is a possible problem to reaching full leadership potential. These issues need to be addressed.
2. Write comments below each category as appropriate to use for future problem solving.
3. Take steps to identify problems and plan actions for improvement.
4. Take actions and check for effectiveness. Revise plan for action if necessary.

Meeting attendance

- ☐ Are meetings held often enough for the group to complete its tasks?
- ☐ Do members attend regularly?
- ☐ Do people participate just because the coalition's actions relate to their job?
- ☐ Are barriers to participation overcome?

Communication

- ☐ Is communication strong, including communication with those not at meetings?
- ☐ Is the role of each participant in the coalition clear?
- ☐ Are the coalition and participant's expectations for attendance, participation, and commitment clear?

Recruitment

- ☐ Does the coalition combine recruiting from professional ranks and the general public?
 - ☐ Do existing coalition leaders provide modeling, guidance, training, and new leadership development?
 - ☐ Does the coalition expect only the amount of work or commitment members are willing to provide?
 - ☐ Do new coalition members have the opportunity to take leadership roles?
 - ☐ Do old and new leaders understand the initiative's mission?
-
-
-

Coalition actions

- ☐ Is the coalition active?
 - ☐ Do actions go beyond meetings and reach out into the community?
-
-
-

Leadership skill development

- ☐ Are successors recruited and groomed to take over leadership positions?
 - ☐ Are the leaders competent in bringing about what needs to be done?
 - ☐ Do leaders manage meetings well?
 - ☐ Are leaders able to complete meeting actions or goals?
-
-
-



Worksheet for Team Building

Complete the following worksheet as a group to get a start on team building.
Examples are provided.

1. Identify the actions your coalition takes to ensure good communication

Example: A copy of meeting minutes is mailed to absent coalition members.

Additional actions that could be planned:

2. Identify ways to facilitate communication or other actions

Example: Form a committee to communicate community resources that would be available to school staff.

Additional actions that could be planned:

Example: Develop a committee that includes a school administrator, teacher, and community member to determine how to use community resources .

3. Identify the steps your coalition takes to ensure recognition and support:

Example: The mayor awards certificates of recognition for community service to all coalition members year.

Additional actions that could be planned:



Healthy Choices

Each coalition member should complete this worksheet individually.

Healthy Choices...are easier with healthy attitudes toward wellness.

Check attitudes below you would like to develop.



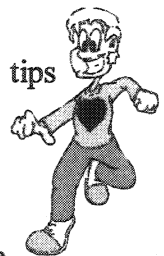
- ☐ Healthy choices are more important for wellness than body size and appearance.
- ☐ Personal wellness goals can be made in small steps.
- ☐ All foods can fit in a healthy diet so there are no guilty eating feelings.
- ☐ Current eating and activity choices are neither good nor bad, just a starting place to set healthy goals.

Healthy Choices...can be influenced by several factors. Check the ones below that you would like to problem-solve to your benefit!

- ☐ **Social events** like movies, birthday parties, and eating out seem to make wellness difficult, *until* you learn all foods are okay with healthy portion sizes and balance with activity.
- ☐ **Family, friends, and co-workers** can "tempt" you with unhealthy choices, *until* you ask them to support your healthy eating and activity choices.
- ☐ **Time** can limit your choices when there is not enough of it, *until* you plan time for making healthy eating possible and make activity a routine.
- ☐ **Stress** can limit healthy choices, *until* you reduce it with stress reduction techniques such as listening to music, taking walks, or talking with a friend.
- ☐ **Income/costs** can be limiting, *until* you learn how to identify ways to fit choices in your budget.
- ☐ **Health problems** such as joint stress can be an excuse *until* you ask your doctor how to work within limitations.
- ☐ **Age** also becomes an excuse, *until* you learn how to set reasonable goals.

Health Changes...can be a success if you remember some important tips. Use the tips below when you create a healthy plan.

- ☐ Set small goals for a specific period of time.
- ☐ Change only a few things at once, 1 or 2 at a time are wise.
- ☐ Record the goals and dates you plan to meet them on a calendar.
- ☐ Check your progress weekly and reward your success with a healthy choice.



Consider the following healthy eating tips to include as goals for your plan.

- ☐ Eat a variety of food from each group of the Food Guide Pyramid.
- ☐ Eat portions recommended for each group of the Food Guide Pyramid.
- ☐ Eat fat and sugar less often or in smaller amounts, i.e., a candy bar once a week instead of every day.
- ☐ Balance food choices with physical activity.
- ☐ Plan easy to prepare, good tasting meals and grocery shop accordingly.



Consider the following physical activity tips to include as goals for your plan.

- ☐ Make small "life-style" changes like parking farther away in the parking lot.
- ☐ Increase activity at home like moving around the house during TV commercials.
- ☐ Increase recreational activity with things you really enjoy, i.e., softball vs. cycling.
- ☐ Find alternatives to fitness centers or equipment if they are not available, i.e., dancing, walking, or stretching.
- ☐ Reduce the things like TV viewing that limit activity.
- ☐ Set aside a particular time of the day for activity so it becomes a part of the routine.



Set your healthy goals, check your progress, celebrate your success, and problem-solve difficulties. An important reminder—keep it simple!

Week 1

What is planned? _____

What works? _____

What needs problem solving? _____

Week 2

What is planned? _____

What works? _____

What needs problem solving? _____

Week 3

What is planned? _____

What works? _____

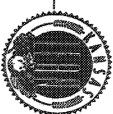
What needs problem solving? _____



Component: Community

Community Factors	Initial Status	Actions Planned	Results Demonstrated Specify # actions taken, changes, or comments
1. Businesses in the community promote healthy work-site choices with things such as healthy vending machine choices, wellness incentives, and wellness opportunities	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress <input type="checkbox"/> In progress
2. Daycare centers are promoting healthy eating and physical activity choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress <input type="checkbox"/> In progress
3. Community-based youth organizations and clubs provide age appropriate activities that promote and model healthy eating and physical choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress <input type="checkbox"/> In progress
4. There are visible community leaders who model healthy choices, such as senior citizens, coaches, government leaders, school leaders, and church representatives	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress <input type="checkbox"/> In progress
5. There is an active community marketing plan to promote healthy eating and activity choices, including involvement by the media	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress <input type="checkbox"/> In progress

Community Factors	Initial Status	Actions Planned	Results demonstrated Specify # actions taken, changes, or comments
6. Physical activity opportunities and facilities are easily accessible for all community groups	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
7. Businesses who provide products and services, such as restaurants, fast food business, and supermarkets promote healthy eating	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
8. There are community-based programs that provide opportunities to improve nutrition and physical activity knowledge and skills	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
9. Community-wide events promote and/or provide opportunities for healthy eating and physical activity choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
10. The community/school board supports the healthy changes in school through policy, collaboration, repetition, education, support, and reward	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
11. Other (please specify)	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress



Component: Nutrition Education

Nutrition Education Factors	Initial Status	Actions Planned	Results Demonstrated Specify # actions taken, changes, or comments
12. There is a nutrition education curriculum that incorporates concepts of the Food Guide Pyramid. The curriculum has written outcomes	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
13. Nutrition education is integrated into core subjects in the classroom. Consider how often integration occurs	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
14. Nutrition education lessons are fun and participatory, teaching food choice skills along with knowledge	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
15. Nutrition education lessons are linked to school lunch to create student awareness of healthy choices in their school environment	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
16. Food tasting is used in the classroom to allow students to experience a variety of foods and develop positive attitudes in a supportive environment	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
17. When snacks are available in the classroom, they include healthy choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress

Nutrition Education Factors	Initial Status	Actions Planned	Results demonstrated Specify # actions taken, changes, or comments
18. Parents receive information regarding healthy choices, i.e., letters, newsletters, and surveys, to increase skills, knowledge, and allow feedback	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
19. Parents and community are actively involved in classroom nutrition education, i.e., with interactive homework, field trips, guest speakers, and classroom volunteers	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
20. School staff model personal healthy eating and physical activity choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
21. Administration supports the above factors	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
Other (please specify)	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress





Component: Physical Activity

Physical Activity Factors	Initial Status	Actions Planned	Results Demonstrated Specify # actions taken, changes, or comments
22. Opportunities, in addition to physical education classes, exist for physical activity before, during, and after the school day	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
23. Physical activity is a daily part of the classroom routine	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
24. Physical activity experiences provided are fun, age appropriate, and enhance a student's self-esteem	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
25. The school/community offers a non-competitive environment for physical activity beyond competitive sports programs	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
26. Discipline policies do not include the use of physical activity as punishment	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
27. Physical education curricula support the personal development of student behaviors in decision making, goal setting, and personal fitness needed to maintain a healthy lifestyle	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress

Physical Activity Factors	Initial Status	Actions Planned	Results demonstrated Specify # actions taken, changes, or comments <input type="checkbox"/> In progress
28. Physical education curricula provides instruction in lifetime sports and activities	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
29. Physical education classes are scheduled with sufficient time and frequency to meet the above curricula goals	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
30. Active links exist between students and school health partners, i.e. parents, school staff, and community, for physical activity opportunities	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
31. School staff model personal healthy eating and physical activity choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
32. Administration supports the above factors	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
Other (please specify)	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress





Component: School Meals

Factors	Initial Status	Actions Planned	Results Demonstrated Specify # actions taken, changes, or comments
33. Students are given adequate time to eat meals in a pleasant, safe environment	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress <input type="checkbox"/> In progress
34. School meal environment promotes a healthy eating message by using menu choices, bulletin boards, special activities, and music among other things	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
35. School meal rules discourage philosophies such as "The Clean Plate Club," and the use of food as reward or punishment	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
36. Student feedback is used to increase satisfaction and participation, by using Nutrition Advisory Committees, or other methods, including taste testing	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
37. The sale of foods high in fat, sodium, and added sugars on school grounds and as part of fundraising activities is discouraged	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
38. School meals are coordinated with classroom nutrition education to reinforce learning and increase awareness of healthy eating choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress

School Meal Factors	Initial Status	Actions Planned	Results demonstrated Specify # actions taken, changes, or comments <input type="checkbox"/> In progress
39. Theme days, and special menus are used to increase participation	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
40. School meal choices for reimbursable and ala carte items reflect all federal and state school healthy eating guidelines	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
41. School food service markets the program to students, parents, faculty, administration, and community through a variety of methods, including newsletters and parent meal invitations	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
42. School staff model personal healthy eating and physical activity choices	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
43. Administration supports the above factors	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress
Other (please specify)	<input type="checkbox"/> Strength <input type="checkbox"/> Develop Date _____		<input type="checkbox"/> In progress



**Resource Worksheet**

Kickoff your resource files by beginning a list of all the community resources that can help you promote your initiative. You will use this resource information when you develop a marketing plan in Chapter 3. *Marketing* Module 2: The Marketing Plan.

Type of Resource:			
Name	Address	Phone	Comments

VMOSA: Vision – Mission – Strategies – Objectives – Actions

Vision (a description of the way you want things to look):				
Mission (a statement of what the group intends to do and why):				
Strategies for the components (i.e., education, policy, programs):				
Specify objectives below for each component (statements of 1. how much the group will do within a specified time period and 2. how it will be accomplished):				
Community	Nutrition Education	Physical Activity	School Meals	
Objective 1:	Objective 1:	Objective 1:	Objective 1:	
Objective 2:	Objective 2:	Objective 2:	Objective 2:	
Objective 3:	Objective 3:	Objective 3:	Objective 3:	



Environmental Change Plan

Objective:

Environmental change methods planned. Check all that apply.	Actions and resources needed to implement the plan	Problems to resolve	Who takes action, and by what date?	Review— results of actions Check all that apply.
<input type="checkbox"/> Policy <input type="checkbox"/> Collaboration <input type="checkbox"/> Repetition <input type="checkbox"/> Education <input type="checkbox"/> Support <input type="checkbox"/> Reward	Action: Marketing Plan: Resources:			Communication: <input type="checkbox"/> Great marketing <input type="checkbox"/> Need M-and-M's Time: <input type="checkbox"/> Good timing <input type="checkbox"/> Needs work Location: <input type="checkbox"/> Good <input type="checkbox"/> Needs work Resources: <input type="checkbox"/> Feasible cost <input type="checkbox"/> Good <input type="checkbox"/> Needs work Participation: <input type="checkbox"/> Good <input type="checkbox"/> Needs work Overall: <input type="checkbox"/> Great-continue <input type="checkbox"/> Good-revise <input type="checkbox"/> Fair-revise
-or- Problems resolved: <input type="checkbox"/> Communication <input type="checkbox"/> Time <input type="checkbox"/> Location <input type="checkbox"/> Lack of equipment <input type="checkbox"/> Other	Action: Marketing Plan: Resources:			
	Action: Marketing Plan: Resources:			

Comments:



Environmental Change Method (Strategy) Worksheet



Description of Environmental Change:	
Strategy for Environmental Change: <ul style="list-style-type: none">• Policy• Collaboration• Repetition• Education• Support• Reward	
Positive Aspects of the Change:	
Negative Aspects of the Change:	
List Who Should be involved:	
Specify Funds Needed:	
Other Considerations:	



Checklist for Marketing Success

☐ Marketing team is organized

Team Member	Phone Number

☐ Meeting dates are set

Dates: _____
Times: _____
Locations: _____
How team will be notified: _____

☐ The following information is available

- Community Review
- VMSOA Action Plans
- Resource lists

☐ Environmental Change Method forms are ready for use

Notes: _____

Two Year Coalition Timeline

[illegible]

Marketing Timeline

[illegible]



Brainstorming Healthy Eating Awareness

1. List awareness creating activities for healthy eating. Remember to include activities for all community groups (children, teens, parents, senior citizens, business, etc.).
2. Include these activities in an action plan.

Children: *For example: Reading a book during story hour at the library that can stimulate a discussion about healthy eating choices*

Teens: *For example: Through coaches at orientations for a new sports season*

Parents: *For example: At PTO meetings*

Senior Citizens: *For example: Through "Meals on Wheels" programs*

Chapter 4 Module 3

Identifying School Health Initiative Practices

Many potential opportunities exist and should be examined. Including teachers and other school staff up front will increase the degree of success and sustain the changes.

Check the following policy issue questions as you gather information. The information is necessary to formulate programs and develop curriculum.

- ☐ Does a health program currently exist in the school district?
- ☐ Who determines health programs?
- ☐ How are program guidelines determined?
- ☐ Who provides teacher training and how?
- ☐ Will team teaching be a good option?
- ☐ If not, are all teachers involved?
- ☐ Is nutrition curriculum taught in a few schools or is it district-wide?
- ☐ Is it a separate curriculum, or integrated into core subject areas?
- ☐ Is nutrition curriculum tied to physical activity; is physical activity optional or mandatory?
- ☐ Do opportunities exist to involve art, music, and other subjects?
- ☐ How is everything coordinated?

Use the worksheet on the following page to evaluate curricula.



Chapter 4 Module 3

Nutrition Curriculum Comparison Worksheet:

Curriculum Name:			
Contact Person:			
Order Information Address/Phone			
Cost			
Pre/post tests included?			
# Grade levels available			
Extent of prep work required by teachers: (minimal, moderate, extensive?)			
# Lessons			
Total number of possible in-class hours			
Based on principles of Food Guide Pyramid?			
Up-to-date information on food labels?			
Up-to date information on Dietary Guidelines?			
Supports concept that "all foods can fit"			
Links classroom with food service and the community			
Emphasizes healthy life-style choices			
Emphasis on physical activity?			
Incorporates active participation by students, i.e. tasting, cooking, and experiments?			
Miscellaneous Information			



Check “Linking” Actions

1. Use your Environmental Change Plan to check actions for nutrition education links.
2. Identify which the following links are addressed in the plans.
3. Write down ideas for missing links and incorporate them into your plans as possible.

Links with the School Meal Program:

Links with the Physical Activity:

Links with Administration/School Board:

Links with Parents:

Links with the Community:



Nutrition Education Measures Checklist

Check each of the following actions as they are completed.

- ☐ Plan actions for nutrition education on the VMSOA plan using information indicated on the community review identified for each action.
- ☐ Develop measures for the actions planned above.

Examples:

Action: *Plan at least 3 taste testing activities per year in grades K-5.*

Measure: *Record and date each taste testing activity actually held in a year. Compare the total at the end of the year with the goal.*

Action: *Provide healthy snack choices at all extra-curricular school activities where snacks are offered.*

Measure: *Record the number of extra-curricular school activities in a year and indicate the times healthy snack choices were provided.*

Action: *Publish a minimum of 10 nutrition-related articles in the local newspaper by July 2005.*

Measure: *Record and date the number of nutrition-related articles published in a year. Compare the total at the end of the year with the goal.*

- ☐ Identify a person who will be responsible for collecting nutrition education action information.

Person responsible: _____

- ☐ Identify the methods that will be used for measuring/tracking information.
- ☐ Determine a schedule for reporting results to the coalition specified in the coalition's timeline.
- ☐ Include the reporting schedule in the coalition's timeline.

Notes:



Check Your Healthy Eating Goals

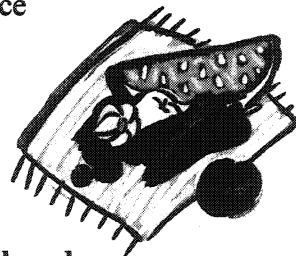
How well are you doing with the goals you set when completing your personal review? Use the following healthy eating actions to check your progress.

Feel encouraged with even small progress towards these goals. In doing so you become a role model for healthy eating.

- ☐ The Food Guide Pyramid is understood and followed
- ☐ Meals are planned for good balance
- ☐ There is good balance when eating out
- ☐ Healthy choices are made easily available
- ☐ Fruits and veggies are on hand at home
- ☐ Breakfast is eaten
- ☐ There is adequate time for eating
- ☐ Factors that create less healthy choices are identified

Families:

- ☐ Meals are eaten together—without distractions like TV
- ☐ All family members help plan healthy meals
- ☐ Healthy snacks are carried in the car during trips and other times when appropriate
- ☐ Healthy snacks are available at home
- ☐ Parents are modeling healthy choices and balance



Place a check by skills that may need to be developed:

- ☐ Basic nutrition understanding
- ☐ Menu planning
- ☐ Eating out
- ☐ Cooking
- ☐ Shopping
- ☐ Other



Brainstorming Physical Activity Awareness

1. List awareness creating activities your community can use for physical activity. Remember to plan something for each community group (children, teens, parents, senior citizens, business, and others).
2. Include these activities in an action plan.

Children: *Example: A physical activity tip from the principal on the intercom each morning*

Teens: *Example: A survey to determine interests*

Parents: *Example: Physical activity suggestions in a parent newsletter*

Senior Citizens: *Example: Post suggestions on the senior center bulletin board about how people can model physical activity for grandchildren*



Physical Activity Up-Close

This tool will help you go beyond the community review to take a closer look at physical activity. Consider the following possibilities for each community group (students, teens, parents/adults, senior citizens, business and schools). Use the information as a measure of progress.

List opportunities for physical activity that currently exist in your community.

List good role models for physical activity.

Provide examples of how physical activity is becoming a habit at home, in the school, and in the community.

List age appropriate activities.

Give examples of good opportunities for freeform play for toddlers and preschoolers such as running, jumping up and down, or climbing on a jungle gym.

List structured noncompetitive activities with rules and teams for school-age kids, like soccer, T-ball, or gymnastics.

List examples of low impact activities for senior citizens and others.

List the types of activities that have good participation.

Which of the existing opportunities are not used to their full potential?

What are the communication, time, or location problems...or a lack of facilities or resources...that keep opportunities from being used to their full potential?

Which resources are needed for making changes (people, facilities, and other resources)?



School Physical Activity Grade Card (1)

Use the following checklist to evaluate your school day opportunities.

Yes	No	
___	___	Is physical education offered for at least 150 minutes per week to all elementary students?
___	___	Does a qualified physical educator teach all of the PE classes?
___	___	Does the PE curriculum have actions based on goals and objectives?
___	___	Are the selected activities designed and utilized to maximize learning and participation?
___	___	Do classes emphasize encouragement, support, and socialization?
___	___	Do classes accommodate all students including those with disabilities?
___	___	Do classes contain numbers of students similar to academic areas?
___	___	Are there adequate facilities and equipment to provide a safe environment?
___	___	Does the program emphasize cooperation, socialization, and lifetime fitness skills at least equally with competition and traditional team sports?
___	___	Is there school-wide agreement that physical activity shouldn't be used as punishment?
___	___	Does the school administration actively support the program?

***Adapted from the Kansas State Department of Education Physical Education Curriculum Guide**



Identify Mixed Messages in Your School (11)

Frequent practices that send mixed messages about physical activity (or healthy eating) in school are listed below.

1. List instances where these messages are occurring in your school.
2. Use an Environmental Change Plan to develop actions that will send a positive message.

Teachers take away physical activity time for misbehavior or use activity as punishment.

Students miss physical education class because they are finishing classroom assignments or making up missed or over due work.

Administrators and teachers regard physical education time as a chance to provide classroom teachers with a planning period.

Physical education is a part-time subject, meeting only two or three times a week in the elementary school.

Students are frequently rewarded with candy, pop, and other treats that provide empty calories.

Students have limited equipment and facilities to utilize during recess or physical education.

(11) Adapted from Fitness Education for Children



Check "Linking" Actions

1. Use your Environmental Change Plan to check actions for physical activity links.
2. Identify which of the following links are addressed in the plans.
3. Write down ideas for missing links and incorporate them into your plans as possible.

Links with the Classroom:

Links with School Meals:

Links with Administration/School Board:

Links with Parents:

Links with the Community:

Chapter 5 Module 5



Physical Activity Measures Checklist

Check each of the following actions as they are completed.

- ☐ Actions planned for physical activity on the VMSOA plan are developed from the community review and measures are identified for each action.
 - ☐ Develop measures for the actions planned above.

Examples:

Action: *Increase the number of noncompetitive baseball teams in the city league.*

Measure: *Record the number of noncompetitive teams at the beginning and at the end of the year and compare.*

Action: *Include at least one activity break at each staff meeting.*

Measure: *Log the number of activity breaks in a year.*

Action: *Enlist the help of service organizations in raising money for a community walking path.*

Measure: *Log the number of service organizations participating at each 3 month interval.*

- ☐ Identify a person who will be responsible for collecting nutrition education action information.

Person responsible: _____

- ☐ Identify the methods that will be used for measuring/tracking information.
- ☐ Determine a schedule for reporting results to the coalition specified in the coalition's timeline.
- ☐ Include the reporting schedule in the coalition's timeline.

Notes:



Family Activity Checklist

√√ Try the “Family on the Go” checklist and see how you do!

- ___ Our family has regular times scheduled throughout the week for physical activity.
- ___ All adult members of our family have moderately intensive physical activity at least 30 accumulative minutes on most, preferably all, days of the week.
- ___ All children in our family are physically active at least 60 minutes and up to several hours per day.
- ___ Our family participates together at least two times per week in physical activities.
- ___ Our family uses physical activity rather than food as a reward.
- ___ Our family obtains toys and equipment that promote physical activity.
- ___ All members of our family understand the Activity Pyramid and use it to create an individual physical activity plan for him or herself.
- ___ Our family has fun with physical activity.



Brainstorming School Meal Awareness

1. List awareness creating activities your community can use for school meals. Remember to plan something for each community group (children, teens, parents, senior citizens, business, etc.).
2. Include these activities in an action plan.

Children: *Example: Food Pyramid posters in classrooms with “impromptu” discussions of how that day’s school meal “fits.”*

Teens: *Example: Healthy eating bulletin board and nutrient analysis of menu items in cafeteria.*

Parents: *Example: A school meal “happenings” column in the school’s parent newsletter.*

Senior Citizens: *Example: “Lunch and Learn” programs at the Senior Service’s Center.*

Chapter 6 Module 2



School Meal Up-Close

This tool will help you go beyond the community review to take a closer look at school meals. Consider the following possibilities for each community group (students, teens, parents/adults, senior citizens, business and schools). Also use the information as a measure of progress.

Teachers, administrators, and food service staff are serving as role models for healthy eating choices.

Teachers promote school meals in the classroom.

Administrators eat school meals with students.

The school cafeteria serves as a learning lab for healthy eating. Displays, posters, reminders are available and/or presentations/skits are performed showing appropriate serving sizes—or how to make choices for good balance. Fats and sugars are in healthy balance with other food groups in a la carte items.

Current, basic nutrition concepts are learned through participation in the school meal program. The Food Guide Pyramid is on display. References are made to it.

There is a collaborative effort between the classroom and food service to create a joint message for healthy eating choices. Teachers compare school menus to the Pyramid.

Food service staff participates in classroom learning. Lessons taught in the classroom are reinforced in the cafeteria. Students are able to help choose menus. Students take "learning tours" through food service.

List existing opportunities in your school that are not used to their full potential.

What are the communication, time, or location problems...or a lack of facilities or resources...that keep opportunities from being used to their full potential?

Which resources will be needed for making changes (people, facilities, and other resources)?

What type of support is being provided for opportunities to sustain the benefits?



Check School Meal “Linking” Actions

1. Use your Environmental Change Plan to check actions for school meal links.
2. Identify which of the following links are addressed in the plans.
3. Write down ideas for missing links and incorporate them into your plans as possible.

Links with the Classroom:

Links with the Physical Activity:

Links with Administration/School Board:

Links with Parents:

Links with the Community:



School Meal Measures Checklist

- ☐ Actions planned for the school meal program on the VMSSOA Plan are reviewed and measures are identified for each action.
- ☐ Develop measures for the actions planned above.

Examples:

Action: *Hold monthly NAC meetings.*

Measure: *Track and record the number of NAC meetings actually held in a year.*

Action: *Increase the number of healthy choices provided in the a la carte line.*

Measure: *Log the type and number of changes made.*

Action: *Students help plan school meal menus.*

Measure: *a. Record the number of menus planned.*

b. Record participation one of the days these menus are served and compare to average daily participation.

- ☐ Identify a person who will be responsible for collecting nutrition education action information.

Person responsible: _____

- ☐ Identify the methods that will be used for measuring/tracking information.
- ☐ Determine a schedule for reporting results to the coalition specified in the coalition's timeline.
- ☐ Include the reporting schedule in the coalition's timeline.

Notes:

School Meal Survey

Indicate the Community Group Surveyed:

1. What is the perceived image of your school meal program?
 <hr/> <hr/> <hr/>
2. Identify the purpose or goals of your school meal program:
 <hr/> <hr/> <hr/>
3. Identify the strengths of your school meal program:
 <hr/> <hr/> <hr/>
4. Identify the areas for possible improvement/change:
 <hr/> <hr/> <hr/>
5. What makes a successful school meal program?
 <hr/> <hr/> <hr/>



Kid's School Meal Survey

Indicate the Community Group Surveyed:

1. What do you think of first when I say, "school meals?"
2. Why do you think there is a school meal program?
3. What are the best things about your school meal program?
4. What are the things being done now that might be better and how can you help?
5. Are there other things that could be done to make a great meal program? How could you help?



School Meal Marketing Ideas

Customer group:

Identify opportunities for school meals to partner with the “customer group surveyed:

Identify marketing steps that can be taken to address school meal misperceptions:

Checklist for a Healthy Coalition



☐ **Marketing and awareness campaigns are continuous**

Notes

☐ **Most segments of the community are represented on the coalition**

Business

- ☐ Media
- ☐ Grocers
- ☐ Restaurants
- ☐ Health Care
- ☐ Industry
- ☐ Other

School

- ☐ Pre-school
- ☐ Elementary School
- ☐ Middle School
- ☐ High School
- ☐ Latchkey

Government

- ☐ City Planners
- ☐ Recreation

Elderly

- ☐ Meal Sites
- ☐ Skilled Nursing

Departments

- ☐ County
- ☐ State

Facilities

Notes

School partners include individuals who represent

- ☐ Administration
- ☐ Teachers
- ☐ School Food Service
- ☐ Physical educators
- ☐ Other staff

Notes

The coalition structure is strong

- ☐ It recruits members
- ☐ It meets regularly
- ☐ Meetings are well facilitated
- ☐ Meetings have recognized outcomes
- ☐ Resources are identified and used suitably
- ☐ Actions are delegated effectively
- ☐ It develops formal and informal leaders
- ☐ It identifies win/win situations
- ☐ It recognizes members
- ☐ There are enough coalition members to support actions planned and comfortably distribute the work

Notes

The community review has been completed to identify

- ☐ Resources
- ☐ Strengths
- ☐ Areas for development

Notes

☐ The initiative has a well defined action plan

Notes

☐ Community strengths are used to increase opportunities for healthy eating and physical activity

Notes

Areas for development are reviewed along with problems that limit opportunities for healthy eating and physical activity. Including:

- ☐ **A lack of communication**
- ☐ **Time**
- ☐ **Facilities**
- ☐ **A lack of interest**
- ☐ **Misperceptions**

Notes

☐ **Actions are planned in small steps and with minimal use of resources, i.e., people, time, money, and equipment**

Notes

Action plans include multiple environmental change factors:

- ☐ **Policy**
- ☐ **Collaboration**
- ☐ **Repetition**
- ☐ **Education**
- ☐ **Support**
- ☐ **Reward**

Notes

Links are formed with

- ☐ **Community**
- ☐ **Nutrition Education**
- ☐ **Physical Activity**
- ☐ **School Meals**
- ☐ **Parents**
- ☐ **Kids**
- ☐ **Administration/School Board**

Notes

Actions

- ☐ **Reach many different areas of the community**
- ☐ **Impact a relatively large number of community members**
- ☐ **Actions are well received in the community**

Notes

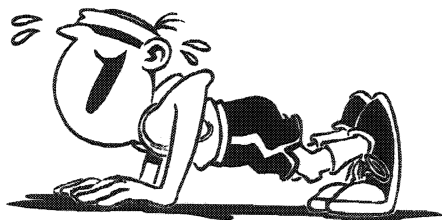
Results are measured/determined

- ☐ **Increased number of appropriate policies**
- ☐ **Increased number of activities with healthy eating or physical activity choices**
- ☐ **Increased number of opportunities to improve skills for healthy eating and physical activity choices**
- ☐ **Increased number of people modeling healthy eating and physical activity choices**

Notes

- ☐ **Even the smallest successes are recognized and celebrated!**

Notes



Is your coalition in shape for the long haul?

If you left any of these factors unchecked, incorporate the actions that will allow you to “check them off” in your **ACTION PLAN FOR SUSTAINABILITY!**



Glossary of Terms

5 A Day: A campaign by the National Cancer Institute that provides free (or minimal cost) materials, information, and ideas for increasing intake of fruits and vegetables.

5-A-Day Challenge: A program developed by the National Cancer Institute to promote the consumption of fruits and vegetables, and to encourage a minimum intake of five fruits and vegetables combined daily.

A la Carte: School meal choices that are not a part of a USDA reimbursable meal plan.

Action Plan: A detailed plan of the actions needed to achieve objectives, answering exactly what will be done, who will do it, and when it will be done.

Active learning time: The time spent moving during any period of learning.

Ad hoc committee: A short-term committee with a very specific function and limited time commitment.

Advisory board: A group that listens, make recommendations and provides support, but takes no action on its own, and has no authority over coalition task forces or committees.

Balance: Eat a variety of foods in moderation, and balance this with regular physical activity.

Brainstorming: A round-robin process whereby everyone provides input.

CDC: Centers for Disease Control and Prevention.

Choices: Make healthy food choices from the major Pyramid Food Groups with less fats, oils, and sweets for good balance.

CLASS ACT: Created for teachers by teachers, a collection of innovative activities for promoting physical activity in the classroom.

Coalition: "A joining of individuals, groups, and businesses with a shared goal of creating changes together that would be impossible independently."

Collaboration: Partners working together and sharing resources to create change.

Community review: A process to identify community strengths and areas for development. It provides information to make decisions about taking actions for improvement.

Customer: Used to refer to the community group targeted for marketing.

Dietary Guidelines for Americans: U.S.D.A. guidelines for healthy eating and activity.

Environmental Change: A change in the factors individuals encounter in their every day life that influence the decisions they make.

Environmental Change Methods: These are methods that are used to create the environmental changes. They are actions such as affecting policy, collaboration, repetition, education, support, and reward.

Exercise: Activity that is structured and tends to have fitness as its goal.

External reward: A reward given by another person or group. It may be in the form of recognition, or a "prize" for something well done.

Facilitator: An individual who uses various techniques to ensure that meetings run smoothly and have good results.

Fat: Recognize the sources of fat in your diet, and limit these sources when making your food choices.

Food Guide Pyramid: A practical tool for choosing a healthful eating pattern.

Healthy lifestyle: Patterns of living that include healthy eating, physical activity, and appropriate rest which lead to both physical and emotional wellness.

Informal, unwritten policy: Tradition...the way things have always been done.

Initiative Coordinator: A person whose primary task is to facilitate communication, organization, and action. This person works with other coalition leaders to share responsibilities.

Interdisciplinary Learning: An educational process in which two or more subject areas are integrated with the goal of enhancing learning in each of the subject areas.

Internal reward: A reward that is not dependent on another person or thing. Internal rewards can include the thrill of a challenge, fun, creativity, curiosity, control (self-responsibility) or desire to learn.

Invisible Partners: Partners who do not regularly attend coalition meetings but believe and support the coalition.

Latchkey: An after-school program for children.

Listening Session: A meeting for collecting ideas and comments for future planning, problem solving, and marketing.

Marketing and Modeling (M-and-M's): Taking action to create awareness, or to sell an idea, practice, or product, and practicing in daily life, the changes you wish to create.

Marketing plan: A plan that is created to promote awareness, “sell an idea, or increase participation.

Marketing team: A committee of coalition members whose primary responsibility is to create community awareness and motivate change.

Measure: A necessary component of your initiative's action plan that will allow your coalition to collect information, interpret it, and measure results to monitor effectiveness.

Member: An individual who shares a personal interest with the coalition.

Mission: A statement of what you intend to accomplish and why.

Mobilizing: Putting factors in place to prompt action.

Model: To practice in daily life the change you wish to create.

Module Glossary: A glossary of terms located at the end of each module.

Noncompetitive physical activity: Participation in the activity isn't dependent on “winning a spot” based on a skill level in comparison with others.

Nutrition Advisory Council (NAC): Student groups formed to offer feedback regarding school meals, and to take an active role in promoting the school meal program goals. A program supported by the American School Food Service Association.

Nutrition misinformation: Misleading or untrue advice about nutrition.

Objectives: Statements of how much you will accomplish, for whom, and when.

Partner: An established agency, organization, or business that has interests compatible with the coalition.

Personal review: A review of factors that influence personal choices for healthy eating and activity.

Physical activity: Any bodily movement you do using skeletal muscle that expends energy.

Physical fitness: A level of health you acquire by being physically active.

Policy: Written, formal guideline(s) for how to proceed in a particular situation.

Promotion: An action taken to promote or “sell” an idea or activity.

Proportion: Choose foods from all five major food groups; choose more servings from the Grain, Vegetable, and Fruit groups than the other Pyramid groups.

Resource file: A card or “list” file system to organize resources.

Resource: Existing programs, services, facilities, equipment, time, people, or communication tools that can be used to create opportunities for healthy eating and activity choices.

Role Model: An individual who sets a good example by “doing”.

School-based Community Initiative: Step Up and Step Out—joining community and school to form a coalition for the purpose of increasing healthy choices everywhere children live, learn, and play.

Self-efficacy: Confidence in ability to do something.

Six R's of participation: 6 reasons people participate in groups, organizations, or associations. Identified by AHEC/Community Partners.

Star 5: Classroom activities that teach the Food Guide Pyramid and 5 basic nutrition concepts.

Strategy: Broad statements about how your mission will be accomplished.

Sustainability: The ability to maintain something over time.

Target market: The community group(s) for which the marketing plan is developed.

Task force: A subgroup of the coalition that is developed for specific activities, functions, or target audiences.

Tasting Party: A real-life method of teaching/learning about healthful eating.

Team Nutrition: A USDA initiative designed to help schools making healthy changes in the school meal plan do so easier and with more success.

Timeline: A written outline of actions organized by date for completion.

Variety: Eat a variety of foods each day to best meet your calorie and nutritional needs.

Visible Partners: Partners who are active in planning and initiating coalition actions.

Vision: A short memorable statement describing your dream.

VMSOA: Vision-Mission-Strategies-Objectives-Actions. A 5-step method for action planning.

Win/win partnership: A partnership in which each partner, member, and the coalition benefit from the relationship.

Workout: Often used to refer to exercise.

Youth Advisory Council (YAC): A council of students, teachers, and others that makes recommendations for any youth-related factor, including school meals, activity, or substance abuse.

Resources

Coalition

America School Health Association (ASHA)

7263 State Route 43

PO Box 708

Kent, OH 44240

330-678-1601

www.ashaweb.org

From the Ground Up, A Workbook on Coalition Building and Community Development, 2nd Edition Spring 1997

AHEC/Community Partners

24 South Prospect Street

Amherst, MA 01002

413-253-4283

Generation Fit, Action Packet...Today's Generation Advocating for Good Health

Five health-related community action/service learning projects

American Cancer Society

1599 Clifton Road, NE

Atlanta, GA 30328

1-800-ACS-2345

www.cancer.org

National Association of State Boards of Education (NASBE)

1012 Cameron Street

Alexandria, VA 22314

703-684-4000

www.nasbe.org

National School Boards Association (NSBA)

1680 Duke Street

Alexandria, VA 22314-3493

703-838-6722

www.nsba.org

The National PTA

330 North Wabash Ave., Suite 2100

Chicago, IL 60611-3690

312-670-6782

www.pta.org

Nutrition

American Cancer Society

1599 Clifton Road, NE
Atlanta, GA 30328
1-800-ACS-2345
www.cancer.org

American Dietetic Association

National Center for Nutrition and Dietetics
216 W. Jackson Blvd., Suite 800
Chicago, IL 60606-6995
1-800-745-0775
www.eatright.org

American Heart Association

7272 Greenville Ave.
Dallas, TX 75231-4596
www.americanheart.org

Communicating Food for Health Newsletter

15084 N. 92nd Place
Scottsdale, AZ 85260
602-314-0423
www.foodandhealth.com

Consumer Information Center

Pueblo, CO 81009
719-948-4000
(Call for catalog)

Department of Health and Human Services

<http://www.hhs.gov/families/kids.htm>
A listing of web pages for kids around the Federal Government

Food and Nutrition Information Center

National Agricultural Library
U.S. Department of Agriculture
10301 Baltimore Blvd., Room 304
Beltsville, MD 20705
301-504-5719
www.nal.usda.gov/fnic

Food Guide Pyramid

The famous food pyramid guides kids and adults to wise food choices, with advice on what your body needs each day and how to eat the healthiest diet

<http://www.nal.usda.gov:8001/py/pmap.htm>

Food Guide Pyramid for Young Children

<http://www.usda.gov/cnpp/KidsPyra>

National Cancer Institute

Office of Cancer Communications

Building 31, Room 10A16

31 Center Drive, MSC-2580

Bethesda, MD 20892-2580

1-800-422-6237

www.nci.nih.gov

National Heart, Lung, and Blood Institute (NHLBI)

NHLBI Information Center

PO Box 30105

Bethesda, MD 20824-0105

301-251-1222

www.nhlbi.nih.gov

National Institute of Environmental Health Sciences

<http://www.niehs.nih.gov/kids/home.htm>

A listing of educational and fun kids pages

USDA Center for Nutrition Policy and Promotion

1120 20th Street NW

Suite 200, North Lobby

Washington, DC 20036

202-418-2312

www.usda.gov/fcs/cnpp.htm

Nutrition Curriculum

American Cancer Society

"An Early Start to Good Health" for Grades K-3

"Changing the Course"

1599 Clifton Road, NE

Atlanta, GA 30328

1-800-ACS-2345

www.cancer.org

American Heart Association

"Heart Power" for Grades K-2 and 3-5
7272 Greenville Ave.
Dallas, TX 75231-4596
www.americanheart.org

National Dairy Council

Nutrition education curriculum for grade school and middle school students.
10255 W. Higgins Road, Suite 900, Rosemont, Illinois 60018-5616. Call (847) 803-2000
for a catalog.

National Heart Lung and Blood Institute

*GO FOR HEALTH FIVE curriculum lessons from CATCH (Child and Adolescent Trial
for Cardiovascular Health*
Information Center
P.O. Box 30105
Bethesda, Maryland 20824-0105
(301) 251-1222
FAX (301)251-1223

Produce for Better Health Foundation

www.5aday.com
The 5 A Day goal is to increase consumption of fruits and vegetables to an average of 5
or more servings a day to improve the health of Americans. The website provides
information for creating a healthier America through increased consumption of fruits and
vegetables. The Foundation is a nonprofit organization which, in cooperation with the
National Cancer Institute, sponsors the national 5 A Day-- for Better Health program.

Pyramid Pursuit

Nutrition curriculum for grades K-6. A curriculum that focuses on the Food Guide
Pyramid. It is based on USDA's research on what foods Americans eat, what nutrients
are in these foods, and what foods are needed for a healthy diet. Activities are
participatory and interact with other subject matters. The curriculum was used for the
Kansas LEAN Phase 2 schools. The manual was developed by the National Food
Service Management Institute, the University of Mississippi, P.O. Drawer 188,
University, Mississippi 38677-0188, March 1994. 1-800-321-3054.

Physical Activity

American Council on Exercise

5820 Oberlin Dr. Suite 102
San Diego, CA 92121
www.acefitness.org

American Heart Association

7272 Greenville Ave.

Dallas, TX 75321

www.americanheart.org

Association for Worksite Health Promotion

60 Revere Dr. Suite 500

Northbrook, IL 60062

www.awhp.org

Creative Walking, Inc.

P.O. Box 50296

Clayton, MO 63105

1-800-762-9255

Creative ways to integrate walking and wellness into a school improvement program.

Physical Activity and Health: A Report by the Surgeon General, 1996

Physical Activity and Good Nutrition, Essential Elements for Good Health, 2000

Centers for Disease Control and Prevention: 1996; 4770 Buford Highway NE, Atlanta

GA 30341-3717; Phone 770-488-5820. E-mail <http://www.cdc.gov/nccdphp>

NASPE/AAHPERD/COPEC

AAHPERD is American Alliance for Health, Physical Education,
Recreation and Dance

NASPE is National Association for Sport and Physical Education, a
division of AAHPERD

COPEC is Council on Physical Education for Children, a council under
NASPE

AAHPERD also has a section on Health, Recreation and Leisure that can
be accessed at their website

1900 Association Drive

Reston, VA 22091-1599

1-800-213-7193

www.aahperd.org

Physical Best Activity Guide, Elementary and Secondary Level Guides

American Alliance for Health, Education, Recreation, and Dance

Human Kinetics, 1999, Champaign-Urbana, Illinois <http://www.humankinetics.com/>

Physical Best is a comprehensive health-related fitness education program to be used in conjunction with existing K-12 physical education curriculums. Physical Best moves beyond traditional programs by raising children's awareness of physical fitness, the connection between physical activity, and health-related fitness, and by making physical activity health-related and non-competitive.

The Activity Pyramid

The Institute for Research and Education

Park Nicollet Healthsource

3800 Park Nicollet Boulevard

Minneapolis, MN 55416

1-800-372-776

Like USDA's Food Guide Pyramid, the Activity Pyramid illustrates a "balanced diet" of weekly physical activity and various forms of "traditional" exercise. It helps individuals find ways to add activity to their days and develop lifelong personal habits

FITNESSGRAM

The Cooper Institute for Aerobics Research

12330 Preston Road

Dallas, Texas 75230

1-214-701-8001

www.cooperinst.org

1-214-701-8001

FITNESSGRAM is a test designed to evaluate and education students about the status of their physical fitness. The goal is to recognize students who are physically active and who achieve the Healthy Fitness Zone. The program also includes a ACTIVITYGRAM computer software with a log for daily activity.

National Recreation and Park Association

2775 S. Quincy St., Suite 300

Arlington, VA 22206

www.nrpa.org

SMART MOVES Why Learning is Not All in Your Head,

Hannafor, Carla, Ph.D.

Great Ocean Publishers, Arlington, VA, 1995.

SPARK

5250 Campanile Dr.

San Diego, CA 92182, 1-800-SPARKPE

sparkpe@mail.sdsu.edu

Dick and Jane Approach to Advocacy: Physical Education K-8

Mirror Publishing

PO Box 1708

Emporia, Kansas

Phone 316-341-5946

[Http://academic.emporia.edu/ermlerka/Mirror/Publish/Mirror.htm](http://academic.emporia.edu/ermlerka/Mirror/Publish/Mirror.htm)

A book designed to assist K-8 physical educators with advocacy ideas to promote their Physical Education programs. It offers practical ways to call attention to Physical Education and the benefits these programs provide to children.

School Meals

American School Food Service Association (ASFSA)

1600 Duke St., 7th Floor

Alexandria, VA 22314

1-800-877-8822

www.asfsa.org

National Food Service Management Institute (NFSMI)

The University of Mississippi

PO Drawer 188

University, MS 38677-0188

1-800-321-3054

www.olemiss.edu/depts/nfsmi

USDA Team Nutrition

Child Nutrition Division

3101 Park Center Drive, Room 1010

Alexandria, VA 22302

703-305-1624

www.teamnutrition@usda.gov

Website Information

The following sites are only starting points. There are many more resources on the Internet. Although these sites were all checked, and were appropriate upon posting, Step Up and Step Out cannot take responsibility for any changes.

Food , Nutrition and Physical Activity Websites for Children, Teachers and Parents

Activity Pyramid

http://www.schoolmenu.com/activity_pyramid.htm

From the President's Council on Physical Fitness and Sports, this activity pyramid, modeled after the Food Guide Pyramid, is a very easy to understand picture look at how to be active every day!

BrainPop

<http://brainpop.com>

An fun, educational site for middle school students with short movies including digestion, function of food in the body, and many biology lessons

Benny Goodsport

www.bennygoodsport.com

A fun website with many ideas for activities and games.

Clueless in the Mall

<http://calcium.tamu.edu/>

An interactive site for young teenagers to educate them about the importance of obtaining enough calcium in the diet. Clueless is a virtual scavenger hunt through the mall, looking for calcium clues.

Broccoli Town USA

www.broccoli.com

A website all about broccoli. Take a virtual tour from field to kitchen, enjoy recipes, games, color pages, and chances to win prizes.

Center for Science...Just for Kids

www.cspinet.org/kids/index.html

Join the chow club, have fun in the kitchen, make suggestions for better school lunch.

Chef Combo's Fantastic Adventure

http://www.nutritionexplorations.org/chef_combo.html

The National Dairy Council's sample activities and nutrition in the classroom ideas. Travel with the Chef on his adventures and browse the teacher center.

DJ's Spot's "Tooned In" School Menu

<http://www.schoolmenu.com/menus.htm>

Kids will want to check out DJ's Spotlight on nutrition information, games, and mazes; try to unlock the secret code, learn all about the Food Guide Pyramid, and even take a look at what is on the school lunch menu for your school district this week!

Dole 5 A Day

www.dole5aday.com

Learn about fruits and vegetables and have fun doing so! An educator's link and a just-for-kids link filled with games, activities, and songs. Visit Amber Orange, Bobby Banana, and friends.

Family Food Zone

www.familyfoodzone.com

Open the "refrigerator door" to learn how to make nutrition easy for the family. Shopping tips, kids cooking, Q & A

Fitnesslink

www.fitnesslink.com

This site features stretching and warm-up activities for kids, with easy to follow diagrams.

Gameskids

www.gamekids.com

An international meeting place for kids to learn and exchange non-computer games, activities, and recipes, and then download them, PLAY, and enjoy!

Girl Power-BodyWise

<http://www.health.org/gpower/girlarea/bodywise/>

A part of the national public education campaign sponsored by the U.S. Department of the Health and Human Services to help encourage and motivate 9- to 14- year-old girls to make the most of their lives. Topics include body image, sensible eating and activity.

Kellogg's Nutrition Camp

www.nutritioncamp.com

Aah, a camp without tents and mosquitoes! The perfect camp to learn about nutrition, breakfast basic, and enjoy a learning lab.

Kids Can Make a Difference

www.kids.maine.org

At this site, read about what other kids think about hunger and what they are doing about it.

Kids Cyber Club

www.kidsfood.org

Climb up to the tree house, and enter the door of fun activities, gardening, book ideas, nutrition questions, evaluate your plate, and more!

Kids Health

www.kidshealth.org

A kid friendly site features body function health education, such as demonstrations of how the eye, ear work, and sections with food and fitness ideas, activities, and recipes, with a section for parent tips

Kraft's Interactive Kitchen

www.kraftfoods.com

Recipes, a meal planner, and even a Busy Mom's corner.

National Dairy Council

www.gotmilk.com

Interactive nutrition fun for kids, featuring the "got milk" inline skating team, educational materials for the classroom, and posters promoting milk for the lunchroom

National Pork Producers Council

www.nppc.org

The site contains a section "Nutrition for Kids", containing food-related activities, and interactive games and puzzles

Nutrition Café

www.exhibits.pacsci.org/nutrition

The Pacific Science Center and the Washington State Dairy Council join together to take you to Have a Bite Café, let you become a nutrition sleuth, enjoy great games about healthy eating.

Organ Wise Guys

www.organwiseguys.com

Come meet Hardy Heart, Sir Rebrum, the Kidney Brothers, Kid and Sid, and all their organ friends. A fun, educational message from a group of lovable characters about being smart from the inside out.

Pear Bear

www.usapears.com

Learn about the world of pears with recipes, activities, and lessons for health taught by none other than Pear Bear himself.

Sports Illustrated for Kids

www.sikids.com

This website features games, advice, and information about your favorite athletes!

Wegmans

www.wegmans.com

A New York based supermarket chain creates a helpful site for the family, complete with healthy cooking techniques, and a kids section with food safety ideas, games, food experiments, and color pages

Why Milk?

www.whymilk.aa.psiweb.com

Targeted to kids, this site is all about milk, featuring milk mustache celebrities, club milk, and recipes.

Yahooligans

www.yahooligans.com

A Yahoo site just for the kids that includes a wide range of educational activities for all the core classroom subjects, and includes food fun.

Websites Especially for Teachers and Parents

Cooking with Kids

www.cookingwithkids.com

Tips, recipes, games, and other links to cooking with kid's websites.

Education Place

www.eduplace.com

Houghton Mifflin offers this site with K-8 classroom resources, including nutrition education materials, a links for parents, teachers, and a kids clubhouse.

Family.com

www.family.com

Parents are offered food and nutrition advice along with recipes for the family.

Fridge Fun

www.fridgefun.com

Add silliness to your kitchen's largest appliance with fridge fun magnets, fun gift ideas, and sets just for kids.

Light Cooking

www.lightcooking.com

This site features healthy recipes and ideas and includes a kid's cooking corner.

Nutrition Central

<http://hydra.etl.vt.edu/Nutrition.Central/#>

A site designed for parents and teachers to find nutrition education resources for preschool children.

Teacher Pathfinder

<http://teacherpathfinder.org/index.htm>

A large listing of nutrition resources, lesson plans, and newsletters for teachers

Teachfree

www.teachfree.com

Sponsored by the National Cattlemen's Beef Association, Beef Board and 46 state beef councils. High quality, peer-reviewed PreK-12 supplemental learning classroom kits, free, or very low cost, includes foods, nutrition, food safety, and quantity recipes for schools.

Teachnet

www.teachnet.com

Smart ideas for busy teachers, and a great way to connect with other teachers, exchange ideas on line, and enhance creativity and learning in the classroom.

Tufts Nutrition Navigator

www.navigator.tufts.edu

Tufts University reviews and rates nutrition websites for reliable, accurate nutrition information.

USDA Low Fat Milk Promotion

<http://schoolmeals.nal.usda.gov:8001/Recipes/watkins.pdf>

A USDA letter encouraging school food services to serve and actively promote the consumption of low fat and fat-free milk.

Washington Apple Commission

www.healthychoices.org

Recipes, apple information and Healthy Choices for Kids nutrition and physical activity curriculum, grades 1-5, free.

Wheat Foods Council

www.wheatfoods.org

Fact sheets, a newsletter about foods, nutrition and activity posters, shirts, and more.

Web 66

<http://web66.coled.umn.edu/>

Not only do you get an opportunity to discover schools from all over the world that have websites, but this site offers helpful advice to schools wanting to set-up their own site, find health resources, or link with other schools.

24 Carrot Press

www.nutritionforkids.com

Nutrition education materials that take a positive, fun approach to teaching kids about health issues. This site includes the Feeding Kids Newsletter complete with excellent articles, tips, and recipes.

Miscellaneous Products

Health EDCO

A variety of health education products and publications for all age levels.

P.O. Box 21207, Waco, Texas 76702-1207. Call 1-800-299-3366, Ext. 295 for a catalog.

Nasco Nutrition Teaching Aids

A variety of games and products including Life-form food replicas.

NASCO, 901 Janesville Ave., Fort Atkinson, Wisconsin 53538-0901.

Call 1-800-558-9595 for a catalog.

NCES

Publications, videos, slide programs, and teaching aids among other things, for all ages.
1904 E. 123rd St., Olathe, Kansas 66061. Call 1-800-445-5653 for a catalog.

National Dairy Council

Nutrition education materials for a variety of ages.
10255 W. Higgins Road, Suite 900, Rosemont, Illinois 60018-5616. Call (847) 803-2000 for a catalog.

Toe Tokens

Fitness Finders
Box 160
Spring Arbor, Michigan 49283
Cut little incentives to attach to kid's shoestrings.

Yummy Designs

Large, colorful, fruit and vegetable Mylar balloons among other products for children.
Yummy Designs, P.O. Box 1851, Walla Walla, Washington 99362, 1-888-74-YUMMY.

REMLINE CORP

5 A Day source for materials to purchase, i.e., bookmarks, pencils, mugs, and aprons
139 Chestnut Hill Rd
Newark, DE 19713
1-800-555-6115

Kansas Resources

Class Act

A curriculum for school teachers grades K-5 who would like to use physical activity to teach communication skills, math, science, social studies, and more! For additional information contact Paula Marmet, Director of Kansas Bureau of Health Promotion, 109 S.W. 9th St, Suite 605, Topeka, Kansas 66612, (785) 296-5589, or visit Kansas State Department of Health and Environment Home Page <http://www.kdhe.state.ks.us/bhp/>.

KN-TRAIN (Kansas Nutrition Training Resource and Information Network)

A cooperative effort of Nutrition Services, Kansas State Department of Education and Office of Community Health, Kansas State University Research and Extension. Kansas educators and school food service professionals can borrow up-to-date nutrition education and school food service training resources at no charge other than return postage. For additional information contact Nutrition Services, Kansas State Department of Education, 120 SE 10th Avenue, Topeka, Kansas 66612-1182, (785) 296-2276 or visit Healthy School Meals Resource System <http://schoolmeals.nal.usda.gov:8001/> or Team Nutrition Home Page <http://www.usda.gov/fcs/team.htm>.

Physical Dimensions

Physical Dimensions is the Kansas High School Physical Activity and Health/Wellness Curriculum. Funded through a generous grant from the Kansas Health Foundation and successfully piloted in five Kansas High Schools, Physical Dimensions is a curriculum designed to provide young adults with the knowledge and skills to enjoy a physically healthy lifestyle. For more information contact Bobbie Harris, Project Director, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0016, (316) 978-3343, e-mail pebobbie@aol.com.

Physical Focus

The Kansas Middle School Physical Activity and Health/Wellness Curriculum. Piloted in seven Kansas schools, Physical Focus is the middle school version of the highly successful Physical Dimensions high school curriculum funded by the Kansas Health Foundation. For more information contact Bobbie Harris, Project Director, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0016, (316) 978-3343, e-mail pebobbie@aol.com.

Physical Education Curriculum Guide, the Kansas State Department of Education, June 1998. Written by Chandler, Judy; DiLislio, Michelle; Dryer, Dan; Ermler, Kathy; Friesen, Ross; Greene, Leon; Harris, Bobbie; Hines, DeeDee; Mehrhof, Joella; Stockard, Jerry. Kansas State Department of Education, 120 SE 10th Avenue, Topeka, Kansas 66612-1182, (785) 296-2276.

Walking Kansas

Walking Kansas has been an effective health promotion program for Pottawatomie County for more than four years. The program is a walking challenge that includes other activities that are beneficial to health and fitness. Activities may include traditional exercise like bike riding, aerobics, weight training, gardening, and housework. In Blaine, Kansas, Boy Scout Troup 97 cleared a trail around a public lake area as a community project. For more information, contact Gayle Doll, MS, Pottawatomie County Health Department, Box H, Westmoreland, KS 66549, (785) 457-3719.

Walking the Santa Fe Trail

Integrate physical activity with history by walking on the Santa Fe Trail. For more information contact Donna Fleischacker, 305 E. 20th, Hays, Kansas 67601.